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API Reference

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Document conventions

Style	Description	Example
Danger	A danger notice indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	Danger: Resetting will result in the loss of user configuration data.
Warning	A warning notice indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	Warning: Restarting will cause business interruption. About 10 minutes are required to restart an instance.
Notice	A caution notice indicates warning information, supplementary instructions, and other content that the user must understand.	Notice: If the weight is set to 0, the server no longer receives new requests.
Note	A note indicates supplemental instructions, best practices, tips, and other content.	Note: You can use Ctrl + A to select all files.
>	Closing angle brackets are used to indicate a multi-level menu cascade.	Click **Settings**> **Network**> **Set network type**.
Bold	Bold formatting is used for buttons , menus, page names, and other UI elements.	Click **OK**.
`Courier font`	Courier font is used for commands	Run the `cd /d C:/window` command to enter the Windows system folder.
Italic	Italic formatting is used for parameters and variables.	`bae log list --instanceid` *Instance_ID*
[] or [a|b]	This format is used for an optional value, where only one item can be selected.	`ipconfig [-all|-t]`
{} or {a|b}	This format is used for a required value, where only one item can be selected.	`switch {active|stand}`

Table of Contents

1.List of operations by function

The following tables list API operations available for use in Cloud Enterprise Network (CEN).

Instance management

CEN instances

Feature	API operation and references
Creates a CEN instance	CreateCen
Queries the information about your CEN instances.	DescribeCens
Modifies the name and description of a specified CEN instance.	ModifyCenAttribute
Deletes a CEN instance	DeleteCen

Transit routers

Feature	API operation and references
Activates the transit router feature.	OpenTransitRouterService
Queries whether the transit router feature is activated.	CheckTransitRouterService
Creates an Enterprise Edition transit router.	CreateTransitRouter
Modifies the name and description of a transit router.	UpdateTransitRouter
Deletes a transit router	DeleteTransitRouter
Queries the information about a specified transit router.	ListTransitRouters
Queries the zones that support Enterprise Edition transit routers in a specified region.	ListTransitRouterAvailableResource
Grants a transit router the permissions to connect to a network instance that belongs to another Alibaba Cloud account.	GrantInstanceToTransitRouter
Revokes the permissions that a transit router uses to connect to a network instance that belongs to another Alibaba Cloud account.	RevokeInstanceFromTransitRouter

CEN instance tags

Feature	API operation and references
Adds tags to CEN instances.	TagResources
Queries the tags of CEN instances.	ListTagResources
Removes tags from CEN instances.	UntagResources

Instance resource groups

Feature	API operation and references
Changes the resource group of a CEN instance or a bandwidth plan.	MoveResourceGroup

Network connection management

VPC connections

Feature	API operation and references
Creates a virtual private cloud (VPC) connection on an Enterprise Edition transit router.	CreateTransitRouterVpcAttachment
Deletes VPC connections from an Enterprise Edition transit router.	DeleteTransitRouterVpcAttachment
Modifies the name and description of a VPC connection on an Enterprise Edition transit router.	UpdateTransitRouterVpcAttachmentAttribute
Queries the information about VPC connections on an Enterprise Edition transit router.	ListTransitRouterVpcAttachments

VBR connections

Feature	API operation and references
Creates a virtual border router (VBR) connection on an Enterprise Edition transit router.	CreateTransitRouterVbrAttachment
Deletes VBR connections from an Enterprise Edition transit router.	DeleteTransitRouterVbrAttachment
Modifies the name and description of a VBR connection on an Enterprise Edition transit router.	UpdateTransitRouterVbrAttachmentAttribute
Queries the information about VBR connections on an Enterprise Edition transit router.	ListTransitRouterVbrAttachments

Note The API operations that attach or detach network instances are supported by Basic Edition transit routers and the previous version of the CEN console.

Network instance attachment and detachment

Feature	API operation and references
Attaches a network instance to a CEN instance.	AttachCenChildInstance
Detaches a network instance from a CEN instance.	DetachCenChildInstance

Network instance query

Feature	API operation and references
Queries the network instances that are attached to a CEN instance.	DescribeCenAttachedChildInstances
Queries the network instances that have the permissions to access network instances of another Alibaba Cloud account.	DescribeGrantRulesToCen
Queries the information about network instances that are attached to a CEN instance.	DescribeCenAttachedChildInstanceAttribute
Queries the regions that allow you to attach network instances to CEN instances.	DescribeChildInstanceRegions
Query the vSwitches in a VPC that belongs to another Alibaba Cloud account and is attached to a CEN instance.	ListGrantVSwitchesToCen

Inter-region connection management

Bandwidth plans

Feature	API operation and references
Creates a bandwidth plan.	CreateCenBandwidthPackage
Modifies the name and description of a bandwidth plan.	ModifyCenBandwidthPackageAttribute
Modifies the maximum bandwidth of a bandwidth plan.	ModifyCenBandwidthPackageSpec
Queries the remaining bandwidth of a bandwidth plan.	DescribeCenGeographicSpanRemainingBandwidth
Queries the information about bandwidth plans.	DescribeCenBandwidthPackages
Associates a bandwidth plan with a CEN instance.	AssociateCenBandwidthPackage
Disassociates a bandwidth plan from a CEN instance.	UnassociateCenBandwidthPackage
Deletes a bandwidth plan.	DeleteCenBandwidthPackage
Queries the areas that a CEN instance can connect.	DescribeCenGeographicSpans
Queries the regions in an area.	DescribeGeographicRegionMembership

Inter-region connections

Feature	API operation and references
Creates an inter-region connection on an Enterprise Edition transit router.	CreateTransitRouterPeerAttachment
Deletes the inter-region connections from an Enterprise Edition transit router.	DeleteTransitRouterPeerAttachment
Modifies the configuration of inter-region connections on an Enterprise Edition transit router.	UpdateTransitRouterPeerAttachmentAttribute
Queries the inter-region connections on an Enterprise Edition transit router.	ListTransitRouterPeerAttachments
• Sets a maximum bandwidth for an inter-region connection. • Modifies the maximum bandwidth of an inter-region connection. • Sets the bandwidth of an inter-region connection to 0. **Note** This API operation is supported only by the previous version of the CEN console and Basic Edition transit routers.	SetCenInterRegionBandwidthLimit
Queries the maximum bandwidth of inter-region connections.	DescribeCenInterRegionBandwidthLimits

Traffic scheduling

Feature	API operation and references
Traffic marking policy	
Creates a traffic marking policy.	CreateTrafficMarkingPolicy
Modifies the name and description of a traffic marking policy.	UpdateTrafficMarkingPolicyAttribute
Adds a traffic classification rule to a traffic marking policy.	AddTrafficMatchRuleToTrafficMarkingPolicy
Deletes a traffic classification rule from a traffic marking policy.	RemoveTraficMatchRuleFromTrafficMarkingPolicy
Deletes a traffic marking policy.	DeleteTrafficMarkingPolicy
Queries traffic marking policies.	ListTrafficMarkingPolicies
Quality of service (QoS) policy	
Creates a QoS policy.	CreateCenInterRegionTrafficQosPolicy
Modifies the name and description of a QoS policy.	UpdateCenInterRegionTrafficQosPolicyAttribute
Modifies a queue in a QoS policy.	UpdateCenInterRegionTrafficQosQueueAttribute
Deletes a queue from a QoS policy.	DeleteCenInterRegionTrafficQosQueue
Deletes a QoS policy.	DeleteCenInterRegionTrafficQosPolicy
Queries QoS policies.	ListCenInterRegionTrafficQosPolicies

Route management

Network instance routes

Feature	API operation and references
Queries the routes of a CEN instance in a region.	DescribeCenRegionDomainRouteEntries
Queries the routes of a network instance that is attached to a CEN instance.	DescribeCenChildInstanceRouteEntries
Queries the advertisement status of the routes of network instances attached to a CEN instance.	DescribePublishedRouteEntries
Queries overlapping routes.	DescribeRouteConflict
Advertises the routes of a VPC or a VBR that is attached to a CEN instance to the CEN instance.	PublishRouteEntries

Feature	API operation and references
Withdraws the routes of a VPC or a VBR from a CEN instance.	WithdrawPublishedRouteEntries
Adds a route to the route table of a network instance.	CreateCenChildInstanceRouteEntryToCen
Deletes a route from the route table of a network instance.	DeleteCenChildInstanceRouteEntryToCen

Transit router route tables

Feature	API operation and references
Creates a custom route table for an Enterprise Edition transit router.	CreateTransitRouterRouteTable
Deletes a custom route table from an Enterprise Edition transit router.	DeleteTransitRouterRouteTable
Modifies the name and description of a route table that belongs to an Enterprise Edition transit router.	UpdateTransitRouterRouteTable
Queries the route tables of an Enterprise Edition transit router.	ListTransitRouterRouteTables

Transit router routes

Feature	API operation and references
Adds a route to a route table of an Enterprise Edition transit router.	CreateTransitRouterRouteEntry
Modifies the name and description of a route that belongs to a route table of an Enterprise Edition transit router.	UpdateTransitRouterRouteEntry
Deletes a static route from a route table of an Enterprise Edition transit router.	DeleteTransitRouterRouteEntry
Queries the routes in a route table of an Enterprise Edition transit router.	ListTransitRouterRouteEntries

Associated forwarding

Feature	API operation and references
Creates an associated forwarding correlation.	AssociateTransitRouterAttachmentWithRouteTable
Associates a network instance connection with another route table of a transit router.	ReplaceTransitRouterRouteTableAssociation
Queries the associated forwarding correlations of a route table of an Enterprise Edition transit router.	ListTransitRouterRouteTableAssociations
Deletes an associated forwarding correlation.	DissociateTransitRouterAttachmentFromRouteTable

Route learning

Feature	API operation and references
Creates a route learning correlation.	EnableTransitRouterRouteTablePropagation
Queries the route learning correlations of a route table of an Enterprise Edition transit router.	ListTransitRouterRouteTablePropagations
Deletes a route learning correlation.	DisableTransitRouterRouteTablePropagation

Routing policies

Feature	API operation and references
Creates a routing policy.	CreateCenRouteMap
Queries routing policies.	DescribeCenRouteMaps
Modifies a routing policy.	ModifyCenRouteMap
Deletes a routing policy.	DeleteCenRouteMap

Cloud service management

Cloud services

Feature	API operation and references
Creates a connection to a cloud service.	ResolveAndRouteServiceInCen
Queries the connections to a cloud service.	DescribeRouteServicesInCen
Deletes a connection to a cloud service.	DeleteRouteServiceInCen

Alibaba Cloud DNS PrivateZone (PrivateZone)

Feature	API operation and references
Creates a connection to PrivateZone.	RoutePrivateZoneInCenToVpc
Queries the connections to PrivateZone.	DescribeCenPrivateZoneRoutes
Deletes a connection to PrivateZone.	UnroutePrivateZoneInCenToVpc

Multicast management

Multicast domains

Feature	API operation and references
Creates a multicast domain.	CreateTransitRouterMulticastDomain
Modifies the name and description of a multicast domain.	ModifyTransitRouterMulticastDomain
Deletes a multicast domain.	DeleteTransitRouterMulticastDomain
Queries the information about multicast domains on a transit router.	ListTransitRouterMulticastDomains
Associates a vSwitch in a VPC to a multicast domain.	AssociateTransitRouterMulticastDomain
Disassociates a vSwitch in a VPC from a multicast domain.	DisassociateTransitRouterMulticastDomain
Queries the vSwitches that are associated with a multicast domain.	ListTransitRouterMulticastDomainAssociations

Multicast sources and members

Feature	API operation and references
Creates a multicast source.	RegisterTransitRouterMulticastGroupSources
Deletes a multicast source.	DeregisterTransitRouterMulticastGroupSources
Adds a multicast member.	RegisterTransitRouterMulticastGroupMembers
Removes a multicast member.	DeregisterTransitRouterMulticastGroupMembers
Queries the elastic network interfaces (ENIs) that can be used as multicast sources or members in a VPC.	ListGrantVSwitchEnis
Queries the information about the multicast sources and members in a multicast domain.	ListTransitRouterMulticastGroups

Monitoring and O&M

Health checks

Feature	API operation and references
• Configures health checks for a VBR. • Modifies the health check configurations of a VBR.	EnableCenVbrHealthCheck
Queries the health check configurations of VBRs in a specified region.	DescribeCenVbrHealthCheck

Feature	API operation and references
Deletes the health check configurations of a VBR.	DisableCenVbrHealthCheck

2.Call CEN APIs

This topic provides an overview of Cloud Enterprise Network (CEN) API calls. After you call CEN APIs, HTTP GET requests are sent to the API endpoint of CEN, and the system responds according to the parameters set in the request. Note that both the request and the response are UTF-8-encoded.

Request syntax

CEN APIs use RPC style. To call CEN APIs, send HTTP requests.

The structure of a CEN API request is as follows:

```
http://Endpoint/?Action=xx&Parameters
```

where,

- Endpoint: the endpoint of the cloud resource involved. The endpoint of CEN is `cbn.aliyuncs.com`.
- Action: the name of this action. For example, if you need to query created CEN instances, the action is DescribeCens.
- Version: the version of the API. The version of CEN APIs is *2017-09-12*.
- Parameters: the request parameters. Separate multiple parameters by using ampersands (&).

  Request parameters include common parameters and API-specific parameters. Common parameters include API version and identity authentication information among other parameters.

The following is an example of calling DescribeCens to query created CEN instances.

> **Note** The following code has been edited to ease readability.

```
https://cbn.aliyuncs.com/?Action=CreateCen
&Format=xml
&Version=2017-09-12
&Signature=xxxx%xxxx%3D
&SignatureMethod=HMAC-SHA1
&SignatureNonce=15215528852396
&SignatureVersion=1.0
&AccessKeyId=key-test
&Timestamp=2012-06-01T12:00:00Z
…
```

API authorization

To maintain account security, we recommend that you use the Access Keys (AKs) of RAM users to call APIs. Before you use a RAM user to call an API, you must grant the RAM user the corresponding permission to call the API by creating an authorization policy and attaching the policy to the RAM user.

For more information about the policies related to CEN APIs, see RAM authentication.

API signature

Authentication is required by the CEN service for each API call, which is provided by the inclusion of signature information in the request.

CEN uses an AccessKeyID and AccessKeySecret pair (that is, an AK) and symmetric encryption to authenticate the identity of the request sender. AKs are certificates that Alibaba Cloud issues to Alibaba Cloud accounts and RAM users for authentication. It is similar to a logon password. The AccessKeyID is used to identify the visitor's identity. The AccessKeySecret is the key used to encrypt the signature string. The server uses the AccessKeySecret to decrypt the signature string. The AccessKeySecret must be kept confidential.

For an RPC API, you must add the signature to the API request in the following format:

```
https://endpoint/?SignatureVersion=1.0&SignatureMethod=HMAC-SHA1&Signature=CT9X0VtwR86fNWSnsc6v8YGOjuE%3D&SignatureNonce=3ee8c1b8-83d3-44af-a94f-4e0ad82fd6cf
```

Take the API call of DescribeCens as an example. If your AccessKeyID is `testid`, and your AccessKeySecret is `testsecret`, the original request URL is as follows:

```
http://cbn.aliyuncs.com/?Action=DescribeCens
&Timestamp=2016-02-23T12:46:24Z
&Format=XML
&AccessKeyId=testid&Action=DescribeCens
&SignatureMethod=HMAC-SHA1
&SignatureNonce=3ee8c1b8-83d3-44af-a94f-4e0ad82fd6cf
&Version=2014-05-26&SignatureVersion=1.0
```

To generate the signature, follow these steps:

1. Create the string to be signed by using the request parameter.

```
GET&%2F&AccessKeyId%3Dtestid&Action%3DDescribeCens&Format%3DXML&SignatureMethod%3DHMAC-SHA1&SignatureNonce%3D3ee8c1b8-83d3-44af-a94f-4e0ad82fd6cf&SignatureVersion%3D1.0&TimeStamp%3D2016-02-23T12%253A46%253A24Z&Version%3D2014-05-15
```

2. Calculate the HMAC value of the string.

   Add an ampersand (&) after the AccessKeySecret to add the key of the HMAC value. In this example, the key is `testsecret&`.

```
CT9X0VtwR86fNWSnsc6v****juE=
```

3. Add the signature to the request parameter.

```
http:/cbn.aliyuncs.com/? Action=DescribeCens
&Timestamp=2016-02-23T12:46:24Z
&Format=XML
&AccessKeyId=testid
&SignatureMethod=HMAC-SHA1
&SignatureNonce=3ee8c1b8-83d3-44af-a94f-4e0ad82fd6cf
&Version=2014-05-26
&SignatureVersion=1.0
&Signature=CT9X0VtwR86fNWSnsc6v****juE%3D
```

3.RAM authentication

Before using a RAM user to call an API, you must grant the RAM user the corresponding permission to call the API by creating an authorization policy and attaching the policy to the RAM user.

You can specify the resource that a RAM user has permission to operate in the authorization policy. In the authorization policy, an Alibaba Resource Name (ARN) is used to identify the resource to authorize.

The following table lists the available CEN resources and the corresponding ARN formats.

Resource	ARN format
ceninstance	`acs:cen:*:$accountid:ceninstance/$ceninstanceidacs:cen:*:$accountid:ceninstance/*`
cenbandwidthpackage	`acs:cen:*:$accountid:cenbandwidthpackage/$cenbandwidthpackageidacs:cen:*:$accountid:cenbandwidthpackage/*`

Authentication rule

Authentication action	Authentication rule
cen:CreateCen	`acs:cen:*:$accountid:ceninstance/`
cen:ModifyCenAttribute	`acs:cen:*:$accountid:ceninstance/$ceninstanceid`
cen:DeleteCen	`acs:cen:*:$accountid:ceninstance/$ceninstanceid`
cen:DescribeCens	`acs:cen:*:$accountid:ceninstance/`

cen:AttachCenChildInstance	• `acs:cen:*:$accountid:ceninstance/$ceninstanceid`
	• Attach VPCs:
	`acs:vpc:$regionid:$accountid:vpc/$vpcid`
	• Attach VBRs:
	`acs:vpc:$regionid:$accountid:virtualborderrouter/$virtualborderrouterid`

cen:DetachCenChildInstance	• `acs:cen:*:$accountid:ceninstance/$ceninstanceid`
	• Detach VPCs:
	`acs:vpc:$regionid:$accountid:vpc/$vpcid`
	• Detach VBRs:
	`acs:vpc:$regionid:$accountid:virtualborderrouter/$virtualborderrouterid`

cen:DescribeCenAttachedChildInstances	`acs:cen:*:$accountid:ceninstance/$ceninstanceid`
cen:DescribeCenRegionDomainRouteEntries	`acs:cen:*:$accountid:ceninstance/$ceninstanceid`
cen:EnableCenVbrHealthCheck	`acs:cen:*:$accountid:ceninstance/$ceninstanceidacs:vpc:$regionid:$accountid:virtualborderrouter/$virtualborderrouterid`
cen:DisableCenVbrHealthCheck	`acs:cen:*:$accountid:ceninstance/$ceninstanceidacs:vpc:$regionid:$accountid:virtualborderrouter/$virtualborderrouterid`
cen:DescribeCenVbrHealthCheck	`acs:cen:*:$accountid:ceninstance/$ceninstanceidacs:vpc:$regionid:$accountid:virtualborderrouter/$virtualborderrouterid`
cen:CreateCenBandwidthPackage	`acs:cen:*:$accountid:cenbandwidthpackage/`
cen:DescribeCenBandwidthPackage	`acs:cen:*:$accountid:cenbandwidthpackage/`

Authentication action	Authentication rule
cen: ModifyCenBandwidthPackageAttribute	`acs:cen:*:$accountid:cenbandwidthpackage/$cenbandwidthpackageid`
cen: ModifyCenBandwidthPackageSpec	`acs:cen:*:$accountid:cenbandwidthpackage/$cenbandwidthpackageid`
cen: DeleteCenBandwidthPackage	`acs:cen:*:$accountid:bandwidthpackage/$cenbandwidthpackageid`
cen: AssociateCenBandwidthPackage	`acs:cen:`*:$accountid:ceninstance/$ceninstanceid*`acs:cen:`*:$accountid:bandwidthpackage/$cenbandwidthpackageid*
cen: UnassociateCenBandwidthPackage	`acs:cen:`*:$accountid: ceninstance/$ceninstanceid* `acs:cen:`*:$accountid:bandwidthpackage/$cenbandwidthpackageid*
cen: DescribeCenGeographicSpanRemainingBandwidth	`acs:cen:*:$accountid: ceninstance/$ceninstanceid`
cen: SetCenInterRegionBandwidthLimit	`acs:cen:*:$accountid: ceninstance/$ceninstanceid`
cen: DescribeCenInterRegionBandwidthLimits	`acs:cen:*:$accountid: ceninstance/$ceninstanceid`
cen: DescribeRouteConflict	• Describe VPC routes: `acs:vpc:$regionid:$accountid:vpc/$vpcid` • Describe VBR routes: `acs:vpc:$regionid:$accountid:virtualborderrouter/$virtualborderrouterid`
cen: DescribeGeographicRegionMembership	No authentication required.

4.Call CEN API actions for network connections

This topic describes how to connect network instances by calling CEN API actions.

Connect network instances in the same region under the same account

To connect network instances in the same region under the same account, follow these steps:

1. Call CreateCen to create a CEN instance.
2. Call AttachCenChildInstance to attach the target network instances to the CEN instance.

Connect network instances among different regions under the same account

To connect network instances among different regions under the same account, follow these steps:

1. Call CreateCen to create a CEN instance.
2. Call AttachCenChildInstance to attach the target network instances to the CEN instance.
3. Call CreateCenBandwidthPackage to purchase a bandwidth package in the area to which the network instances belong.
4. Call AssociateCenBandwidthPackage to associate the bandwidth package with the CEN instance.
5. Call SetCenInterRegionBandwidthLimit to set cross-region connection bandwidth.

Connect network instances in the same region under different accounts

In this example, the following accounts are used:

- Account A: the owner of a CEN instance and VPC1.
- Account B: the owner of VPC2.

To connect VPC1 and VPC2, follow these steps:

1. Use account A to call CreateCen to create a CEN instance.
2. Use account A to call AttachCenChildInstance to attach VPC1 to the CEN instance.
3. Use account B to call GrantInstanceToCen to authorize account A to attach VPC2.
4. Use account A to call AttachCenChildInstance to attach VPC2 to the CEN instance.

Connect network instances among different regions under different accounts

In this example, the following accounts are used:

- Account A: the owner of a CEN instance and VPC1.
- Account B: the owner of VPC2.

To connect VPC1 and VPC2, follow these steps:

1. Use account A to call CreateCen to create a CEN instance.
2. Use account A to call AttachCenChildInstance to attach VPC1 to the CEN instance.
3. Use account B to call GrantInstanceToCen to authorize account A to attach VPC2.
4. Use account A to call AttachCenChildInstance to attach VPC2 to the CEN instance.
5. Use account A to call CreateCenBandwidthPackage to purchase a bandwidth package in the area to which VPC1 and VPC2 belong.
6. Use account A to call AssociateCenBandwidthPackage to associate the bandwidth package with the CEN instance.
7. Use account A to call SetCenInterRegionBandwidthLimit to set connection bandwidth between the two regions.

5.Common parameters

This topic provides the common request parameters and common response parameters of Cloud Enterprise Network (CEN) API operations.

Common request parameters

Common request parameters must be included in all CEN API requests.

Common request parameters

Parameter	Type	Required	Description
Format	String	No	The format in which the response is returned. Valid values: *JSON and XML. Default value: JSON.*
Version	String	Yes	The version number of the API. Format: `YYYY-MM-DD`. Set the value to *2017-09-12*
AccessKeyId	String	Yes	The AccessKey ID provided by Alibaba Cloud.
Signature	String	Yes	The signature string of the API request.
SignatureMethod	String	Yes	The encryption method of the signature string. Set the value to *HMAC-SHA1*
Timestamp	String	Yes	The timestamp of the request. Specify the time in the ISO 8601 standard in the `YYYY-MM-DDThh:mm:ssZ` format. The time must be in UTC. Example: 2013-01-10T12:00:00Z, which specifies 20:00:00 on January 10, 2013 (UTC+8).
SignatureVersion	String	Yes	The version of the signature encryption algorithm. Set the value to 1.0
SignatureNonce	String	Yes	A unique, random number that is used to prevent replay attacks. You must use different random numbers for different requests.

Examples

```
https://cbn.aliyuncs.com/?Action=DescribeCens
&TimeStamp=2014-05-19T10%3A33%3A56Z
&Format=xml
&AccessKeyId=testid
&Action=DescribeCens
&SignatureMethod=Hmac-SHA1
&CenId=cen-test
&SignatureNonce=NwDAxvLU6tFE0DVb
&Version=2016-04-28
&SignatureVersion=1.0
&Signature=CT9X0VtwR86fNWSnsc6v8YGOjuE%xx
```

Common response parameters

API responses use the HTTP response format. A 2XX status code indicates a successful call and a 4XX or 5XX status code indicates a failed call. Responses can be returned in JSON or XML format. The default response format is JSON. You can specify the format when you call an operation.

Each response returns a unique RequestId regardless of whether the call is successful.

6.Error codes

Error code	Error message	HTTP status code	Description
ParameterIllegal.AliUid	The parameter of aliUid is illegal.	400	The specified account ID is invalid.
ParameterIllegal.Bid	The parameter of bid is illegal.	400	The specified billing ID is invalid.
ParameterIllegal.InstanceId	The parameter of instance id is illegal.	400	The specified instance ID is invalid.
ParameterIllegal.ChildInstanceRegionId	The parameter of child instance region id is illegal.	400	The specified region ID of the network is invalid.
ParameterIllegal.ChildInstanceUid	The parameter of child instance uid is illegal.	400	The account ID of the attached network is invalid.
ParameterIllegal.ChildInstanceBid	The parameter of child instance bid is illegal.	400	The billing ID of the network is invalid.
ParameterIllegal.ChildInstanceType	The parameter of child instance type is illegal.	400	The type of the specified network is invalid.
ParameterIllegal.ChildInstanceId	The parameter of child instance id is illegal.	400	The specified network ID is invalid.
ParameterIllegal.BwpAliUid	The parameter of bandwidth package aliUid is illegal.	400	The account ID of the bandwidth package is invalid.
ParameterIllegal.BwpBid	The parameter of bandwidth package bid is illegal.	400	The billing ID of the bandwidth package is invalid.
ParameterIllegal.BwpInstanceId	The parameter of bandwidth package instance id is illegal.	400	The specified bandwidth package ID is invalid.
ParameterIllegal.BandwidthLimit	The parameter of bandwidth limit is illegal.	400	The specified bandwidth limit is invalid.
ParameterIllegal.RegionId	The parameter of region id is illegal.	400	The specified region ID is invalid.
ParameterIllegal.VbrInstanceRegionId	The parameter of vbr instance region id is illegal.	400	The specified region ID of the VBR is invalid.
ParameterIllegal.VbrInstanceUid	The parameter of vbr instance uid is illegal.	400	The account ID of the specified VBR is invalid.
ParameterIllegal.VbrInstanceBid	The parameter of vbr instance bid is illegal.	400	The billing ID of the specified VBR is invalid.
ParameterIllegal.VbrInstanceId	The parameter of vbr instance id is illegal.	400	The specified VBR ID is invalid.
InvalidName	The name is invalid.	400	The specified name is invalid.
InvalidDescription	The description is invalid.	400	The description is invalid.
InvalidParameter	The parameter is invalid.	400	The specified parameter is invalid.
NameIllegal	The name is illegal	400	The specified name is invalid.
DescriptionIllegal	The description is illegal	400	The description is invalid.
ParameterMustNotNull	The parameter must not empty.	400	Required parameters are missing.

Error code	Error message	HTTP status code	Description
ParameterError	The parameter is error.	400	The specified parameter is invalid.
InstanceType.NotSupport	The type of instance is not support.	400	The type of the specified network is invalid.
FilterKey.NotSupport	The filter key is not support.	400	The specified filter key is invalid.
IdempotenceParam.NotMatch	The parameter of idempotence is not match.	400	The idempotence check fails.
MissingParameter	The parameter is missing.	400	Required parameters are missing.
GeographicSpan.NotFound	The specified geographic span is not found.	404	The specified area is invalid.
InventoryExceeded	The requested bandwidth has exceeded the bandwidth inventory currently available.	400	The specified bandwidth exceeds the quota.
Unauthorized	It's not authorized.	401	You do not have permissions to perform the operation.
Abs.ApiForbiddenBySubBid	User not authorized to operate on the specified resource as your account is created by another user.	403	You do not have permissions to perform the operation.
Forbidden	User not authorized to operate on the specified resource.	403	You do not have permissions to operate the resource.
ParameterInstanceId	The specified instance id does not exist.	404	The specified instance does not exist.
ParameterBwpInstanceId	The specified bandwidth package instance id does not exist.	404	The specified bandwidth package does not exist.
ParameterCenInstanceId	The specified CEN instance id does not exist.	404	The specified CEN instance does not exist.
InvalidOperation.CenInstanceStatus	The CEN instance is not in a valid state for the operation.	409	The specified CEN instance is not in a valid state for the operation. Try later.
InvalidOperation.ChildInstanceStatus	The child-instance is not in a valid state for the operation.	409	The specified network is not in a valid state for the operation. Try later.
InvalidOperation.BwpBusinessStatus	The CEN bandwidth package is not in a valid business state for the operation.	409	The specified bandwidth package is not in a valid state for the operation. Try later.
InvalidOperation.BwpForGeoSpanNotAssociated	Operation is invalid because a bandwidth package corresponding to the geographic span is not associated.	409	No interconnection areas are associated with the specified bandwidth package.
InvalidOperation.BwpBandwidthExceeded	Operation is invalid because the total bandwidth limit has exceeded that of the bandwidth package.	409	The cross-region connection bandwidth exceeds the bandwidth limit of the bandwidth package.
InvalidOperation.VbrNotAttachedToCen	Operation is invalid because the VBR instance is not attached to the CEN instance.	409	The VBR is not attached to the CEN instance.

Error code	Error message	HTTP status code	Description
InvalidOperation.VbrCenAttachmentStatus	The VBR instance to CEN attachment is not in a valid state for the operation.	409	The VBR is not in a valid state for the operation. Try later.
InvalidOperation.ChildInstanceAlreadyAttached	Operation is invalid because the child-instance has already been attached to another CEN.	409	The network has already been attached to another CEN instance.
InvalidOperation.AttachedChildInstanceExist	Operation is invalid because the child-instance have not been detached.	409	The network has not been detached from the CEN instance.
InstanceStatus.NotSupport	The status of instance is not support.	409	The status of the network does not support the operation.
DB.Error	db error	500	An error occurs in the database.
Operation.Blocking	Operation blocking, try again later.	500	The operation is in progress. Try later.
InternalError	Internal error.	500	An unknown internal error occurs.

7.CEN instances

7.1. CreateCen

Creates a CEN instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateCen	The operation that you want to perform. Set the value to **CreateCen**.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must make sure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
Name	String	No	testname	Enter a name for the CEN instance. The name must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The name must start with a letter and cannot start with `http://` or `https://`.
Description	String	No	testdesc	The description of the CEN instance. The description must be 2 to 256 characters in length. It must start with a letter and cannot start with `http://` or `https://`.
ProtectionLevel	String	No	REDUCED	The level of CIDR block overlapping. Set the value to **REDUCED** (default). This value specifies that CIDR blocks can overlap but cannot be the same.

Response parameters

Parameter	Type	Example	Description
CenId	String	cen-dc4vwznpwbobrl****	The ID of the CEN instance.
RequestId	String	0C2EE7A8-74D4-4081-8236-CEBDE3BBCF50	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateCen
&<Common request parameters>
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<CreateCenResponse>
     <CenId>cen-dc4vwznpwbobrl****</CenId>
     <RequestId>0C2EE7A8-74D4-4081-8236-CEBDE3BBCF50</RequestId>
</CreateCenResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "CenId" : "cen-dc4vwznpwbobrl****",
  "RequestId" : "0C2EE7A8-74D4-4081-8236-CEBDE3BBCF50"
}
```

Error codes

For a list of error codes, visit the API Error Center.

7.2. ModifyCenAttribute

Modifies the name and description of a Cloud Enterprise Network (CEN) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifyCenAttribute	The operation that you want to perform. Set the value to **ModifyCenAttribute**.
CenId	String	Yes	cen-7qthudw0ll6jmc****	The ID of the CEN instance.
Name	String	No	test	The name of the CEN instance. The name must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The name must start with a letter or Chinese character but cannot start with `http://` or `https://`.
Description	String	No	cen	The description of the CEN instance. The description must be 2 to 256 characters in length. It must start with a letter or Chinese character and cannot start with `http://` or `https://`.
ProtectionLevel	String	No	REDUCED	The level of CIDR block overlapping. Set the value to **REDUCED** (default). This value specifies that CIDR blocks can overlap but CIDR blocks cannot match.

Response parameters

Parameter	Type	Example	Description
RequestId	String	13526224-5780-4426-8BDF-BC8B08700F22	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ModifyCenAttribute
&CenId=cen-7qthudw0ll6jmc****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifyCenAttributeResponse>
       <RequestId>13526224-5780-4426-8BDF-BC8B08700F22</RequestId>
</ModifyCenAttributeResponse>
```

`JSON` format

```
{
    "RequestId":"13526224-5780-4426-8BDF-BC8B08700F22"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidOperation.EnhanceProtectionLevel	Your request to enhance CBN protection level cannot be processed. Please contact customer support to continue this operation.	The error message returned because you are not allowed to change the protection level for the CBN instance. To perform this operation, contact the customer service.

For a list of error codes, visit the API Error Center.

7.3. DescribeCens

Queries detailed information about Cloud Enterprise Network (CEN) instances within the current Alibaba Cloud account.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeCens	The operation that you want to perform. Set the value to **DescribeCens**.
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.
PageSize	Integer	No	10	The number of entries to return on each page. Valid values: **1** to **50**. Default value: **10**.
Filter.N.Key	String	No	CenId	The filter condition. Valid values: • **CenId**: the ID of a CEN instance. • **Name**: the name of a CEN instance. By default, the logical operator among filter conditions is **AND**. Information about a CEN instance is returned only if the CEN instance matches all filter conditions. You can specify at most five filter conditions in each call.

Parameter	Type	Required	Example	Description
Filter.N.Value.N	String	No	cen-44m0p68spvlrqq****	The value of the filter condition. This parameter sets the value of a filter **key**. You can specify multiple values for a filter **key**. The logical operator among multiple filter values is **OR**. If a CEN instance matches one or more of the values that you specify, the CEN instance matches the filter condition. You can specify at most five values in each filter condition.
Tag.N.Key	String	No	tagtest	The tag keys of the resources. The tag keys cannot be an empty string. The tag keys cannot exceed 64 characters in length, and cannot start with `http://` or `https://`. You can specify at most 20 tag keys in each call.
Tag.N.Value	String	No	tagtest	The tag values of the resources. The tag values can be 0 to 128 characters in length, and cannot start with `http://` or `https://`. Each tag key has a unique tag value. You can specify at most 20 tag values in each call.

Response parameters

Parameter	Type	Example	Description
PageSize	Integer	10	The number of entries returned per page.
RequestId	String	2BFA6822-240E-4E27-B4C8-AA400EF7474D	The ID of the request.
PageNumber	Integer	1	The number of the page returned.
TotalCount	Integer	1	The total number of entries returned.
Cens	Array of Cen		The information about the CEN instance.
Cen			
Status	String	Active	The status of the CEN instance. • **Creating**: The CEN instance is being created. • **Active**: The CEN instance is running. • **Deleting**: The CEN instance is being deleted.
CreationTime	String	2019-10-22T07:44Z	The time when the CEN instance was created. The time follows the ISO8601 standard in the `YYYY-MM-DDThh:mmZ` format. The time is displayed in UTC.
Ipv6Level	String	DISABLED	Indicates whether IPv6 is enabled for the CEN instance. • **ENABLE**: enabled • **DISABLED**: disabled
Description	String	desctest	The description of the CEN instance.

Parameter	Type	Example	Description
ResourceGroupId	String	rg-acfm3unpnuw****	The ID of the resource group to which the CEN instance belongs.
CenId	String	cen-0xyeagctz5sfg9****	The ID of the CEN instance.
ProtectionLevel	String	REDUCED	The level of CIDR block overlapping. **REDUCED**: Overlapped CIDR blocks are allowed. This value specifies that CIDR blocks can overlap but CIDR blocks cannot be duplicates.
Name	String	nametest	The name of the CEN instance.
Tags	Array of Tag		The IDs of the tags that are added to the CEN instance.
Tag			
Key	String	tagtest	The tag key.
Value	String	tagtest	The tag value.
CenBandwidthPackageIds	Array of String	cenbwp-4c2zaavbvh5f42****	The IDs of the bandwidth plans that are associated with the CEN instance.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeCens
&PageNumber=1
&PageSize=10
&Filter=[{"Key":"CenId","Value":["cen-44m0p68spvlrqq****"]}]
&Tag=[{"Key":"tagtest","Value":"tagtest"}]
&<Common request parameters>
```

Sample responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DescribeCensResponse>
    <TotalCount>1</TotalCount>
    <RequestId>2BFA6822-240E-4E27-B4C8-AA400EF7474D</RequestId>
    <PageSize>10</PageSize>
    <PageNumber>1</PageNumber>
    <Cens>
        <Cen>
            <Status>Active</Status>
            <ProtectionLevel>REDUCED</ProtectionLevel>
            <ResourceGroupId>rg-acfm3unpnuw****</ResourceGroupId>
            <Ipv6Level>DISABLED</Ipv6Level>
            <CenId>cen-0xyeagctz5sfg9****</CenId>
            <CreationTime>2019-10-22T07:44Z</CreationTime>
            <CenBandwidthPackageIds>
            </CenBandwidthPackageIds>
            <Name>nametest</Name>
        </Cen>
    </Cens>
</DescribeCensResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "TotalCount" : 1,
  "RequestId" : "2BFA6822-240E-4E27-B4C8-AA400EF7474D",
  "PageSize" : 10,
  "PageNumber" : 1,
  "Cens" : {
    "Cen" : [ {
      "Status" : "Active",
      "ProtectionLevel" : "REDUCED",
      "ResourceGroupId" : "rg-acfm3unpnuw****",
      "Ipv6Level" : "DISABLED",
      "CenId" : "cen-0xyeagctz5sfg9****",
      "CreationTime" : "2019-10-22T07:44Z",
      "CenBandwidthPackageIds" : {
        "CenBandwidthPackageId" : [ ]
      },
      "Name" : "nametest"
    } ]
  }
}
```

Error code

HttpCode	Error code	Error message	Description
400	InvalidTagKey	The tag keys are not valid.	The error message returned because the tag key is invalid.

For a list of error codes, visit the API Error Center.

7.4. DeleteCen

Deletes a Cloud Enterprise Network (CEN) instance.

Prerequisites

Before you delete a CEN instance, make sure that no network instances are attached to and no bandwidth plans are associated with the CEN instance.

- For more information about how to detach a network instance from a CEN instance, see DetachCenChildInstance.

  > **Note** For more information about how to detach a virtual private cloud (VPC) and a virtual border router (VBR) from an Enterprise Edition transit router, see DeleteTransitRouterVpcAttachment and DeleteTransitRouterVbrAttachment.

- For more information about how to disassociate a bandwidth plan from a CEN instance, see UnassociateCenBandwidthPackage.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DeleteCen	The operation that you want to perform. Set the value to **DeleteCen**.
CenId	String	Yes	cen-7qthudw0ll6jmc****	The ID of the CEN instance.

Response parameters

Parameter	Type	Example	Description

Parameter	Type	Example	Description
RequestId	String	5903EE99-D542-4E14-BC65-AAC1CB2D3D03	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DeleteCen
&CenId=cen-7qthudw0ll6jmc****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DeleteCenResponse>
      <RequestId>5903EE99-D542-4E14-BC65-AAC1CB2D3D03</RequestId>
</DeleteCenResponse>
```

`JSON` format

```
{
    "RequestId":"5903EE99-D542-4E14-BC65-AAC1CB2D3D03"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	OperationFailed.DeleteCenWithCustomRouteTable	Operation failed because you are not allowed to delete the CEN with the custom transit router route table.	The error message returned because you are not allowed to delete the CEN instance. Custom route tables are created on the CEN instance.
400	OperationFailed.DeleteCenWithRouteEntry	Operation failed because you are not allowed to delete the CEN with the transit router route entry.	The error message returned because you are not allowed to delete the CEN instance. Custom route entries are created on the CEN instance.

For a list of error codes, visit the API Error Center.

7.5. MoveResourceGroup

Moves a Cloud Enterprise Network (CEN) instance or a bandwidth plan to another resource group.

Usage notes

By default, CEN instances and bandwidth plans are in the default resource group. You can call `MoveResourceGroup` to move CEN instances or bandwidth plans to another resource group.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	MoveResourceGroup	The operation that you want to perform. Set the value to **MoveResourceGroup**.

Parameter	Type	Required	Example	Description
ClientToken	String	No	123e456****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must make sure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length. **Note** If you do not set this parameter, the system automatically uses **RequestId** as **ClientToken**. **RequestId** may be different for each API request.
DryRun	Boolean	No	false	Specifies whether to only precheck the request. Valid values: • **true** precheck the request and does not change the resource group to which the CEN instance or bandwidth plan belongs. The system checks the required parameters, request syntax, and limits. If the request fails the precheck, an error message is returned. If the request passes the precheck, the `DryRunOperation` error code is returned. • **false** (default): sends the API request. If the request passes the precheck, a 2xx HTTP status code is returned and the operation is performed.
NewResourceGroupId	String	Yes	rg-aekzqqurtfg****	The ID of the resource group to which you want to move the CEN instance or bandwidth plan.
ResourceType	String	Yes	cen	The resource type. Valid values: • **CEN**: CEN instance • **bandwidthpackage**: bandwidth plan
ResourceId	String	Yes	cen-nye53d7p3hzyu4****	The ID of the resource.

Response parameters

Parameter	Type	Example	Description
RequestId	String	1D169236-7C76-57CF-B6C8-B4CACE0BA1BB	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=MoveResourceGroup
&ClientToken=123e456****
&DryRun=false
&NewResourceGroupId=rg-aekzqqurtfg****
&ResourceType=cen
&ResourceId=cen-nye53d7p3hzyu4****
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<MoveResourceGroupResponse>
    <RequestId>1D169236-7C76-57CF-B6C8-B4CACE0BA1BB</RequestId>
</MoveResourceGroupResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "1D169236-7C76-57CF-B6C8-B4CACE0BA1BB"
}
```

Error codes

For a list of error codes, visit the API Error Center.

7.6. GrantInstanceToCen

Grants the permission of a network instance to a CEN instance.

Limits

Before you can attach a network instance under an account to a CEN instance under another account, you must use this API to authorize the CEN instance from the account where the network instance is located.

Note When you call this API, you must use `vpc.aliyuncs.com` as the domain name. The API version is the one released on April 28, 2016.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	GrantInstanceToCen	The name of this action. Value: **GrantInstanceToCen**.
CenId	String	Yes	cen-7qthudw0ll6jmc****	The ID of the CEN instance to be authorized.
CenOwnerId	Long	Yes	123456789	The UID of the account to which the CEN instance belongs.
InstanceId	String	Yes	vpc-uf6o8d1dj8sjwxi6o****	The ID of the network instance.
InstanceType	String	Yes	VPC	The type of the network instance. Valid values: • **VPC**: VPC • **VBR**: VBR • **CCN**: CCN
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the network instance belongs.
ClientToken	String	No	0c593ea1-3bea-11e9-b96b-88e9fe637760	The client token that guarantees the idempotence of the request. The value of this parameter is generated by the client. The value must be unique among different requests and must be 1 to 64 ASCII characters in length.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	473469C7-AA6F-4DC5-B3DB-A3DC0DE3C83E	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? Action=GrantInstanceToCen
&CenId=cen-7qthudw0ll6jmc****
&CenOwnerId=123456789
&InstanceId=vpc-uf6o8d1dj8sjwxi6o****
&RegionId=cn-hangzhou
&<CommonParameters>
```

Response example

`XML` format

```
<GrantInstanceToCenResponse>
      <RequestId>0C2EE7A8-74D4-4081-8236-CEBDE3BBCF50</RequestId>
</GrantInstanceToCenResponse>
```

`JSON` format

```
{
 "RequestId":"0C2EE7A8-74D4-4081-8236-CEBDE3BBCF50"
}
```

Errors

For a list of error codes, visit the API Error Center.

7.7. RevokeInstanceFromCen

Revokes the authorization of a network instance from a CEN instance.

Limits

- When you call this API, you must use `vpc.aliyuncs.com` as the domain name.
- The API version must be the one released on April 28, 2016.

Debug

Use OpenAPI Explorer to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	RevokeInstanceFromCen	The name of this action. Value: **RevokeInstanceFromCen**.
CenId	String	Yes	cen-7qthudw0ll6jmc****	The ID of the CEN instance from which you want to revoke the authorization of the network instance.
CenOwnerId	Long	Yes	123456789	The UID of the account to which the CEN instance belongs.
InstanceId	String	Yes	vpc-uf6o8d1dj8sjwxi6o****	The ID of the network instance.
InstanceType	String	Yes	VPC	The type of the network instance. Valid values: • **VPC**: VPC • **VBR**: VBR • **CCN**: CCN
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the network instance belongs.

Parameter	Type	Required?	Example value	Description
ClientToken	String	No	0c593ea1-3bea-11e9-b96b-88e9fe637760	The client token that guarantees the idempotence of the request. The value of this parameter is generated by the client. The value must be unique among different requests and must be 1 to 64 ASCII characters in length.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	473469C7-AA6F-4DC5-B3DB-A3DC0DE3C83E	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? Action=RevokeInstanceFromCen
&CenId=cen-7qthudw0ll6jmc****
&CenOwnerId=123456789
&InstanceId=vpc-uf6o8d1dj8sjwxi6o****
&RegionId=cn-hangzhou
&<CommonParameters>
```

Response example

`XML` format

```
<RevokeInstanceFromCenResponse>
      <RequestId>0C2EE7A8-74D4-4081-8236-CEBDE3BBCF50</RequestId>
</RevokeInstanceFromCenResponse>
```

`JSON` format

```
{
 "RequestId":"0C2EE7A8-74D4-4081-8236-CEBDE3BBCF50"
}
```

Errors

For a list of error codes, visit the API Error Center.

8.Transit routers

8.1. OpenTransitRouterService

Activates the transit router feature.

Usage notes

You can call `OpenTransitRouterService` to activate the transit router feature free of charge. After the `OpenTransitRouterService` operation succeeds, an order is automatically generated. You can use the returned order ID to query the order information in Alibaba Cloud User Center.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	OpenTransitRouterService	The operation that you want to perform. Set the value to **OpenTransitRouterService**.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must make sure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.

Response parameters

Parameter	Type	Example	Description
OrderId	String	21370700730****	The ID of the order.
RequestId	String	866DEBE1-6411-51EC-80D8-975349B9FB4A	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=OpenTransitRouterService
&ClientToken=02fb3da4-130e-11e9-8e44-001****
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<OpenTransitRouterServiceResponse>
    <OrderId>21370700730****</OrderId>
    <RequestId>866DEBE1-6411-51EC-80D8-975349B9FB4A</RequestId>
</OpenTransitRouterServiceResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "OrderId" : "213707007300****",
  "RequestId" : "866DEBE1-6411-51EC-80D8-975349B9FB4A"
}
```

Error codes

For a list of error codes, visit the API Error Center.

8.2. CheckTransitRouterService

Queries whether your Alibaba Cloud account has the transit router feature activated.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CheckTransitRouterService	The operation that you want to perform. Set the value to **CheckTransitRouterService**.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must make sure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.

Response parameters

Parameter	Type	Example	Description
Enabled	String	true	Indicates whether the transit router feature is activated. • **true**: activated • If this value is not returned, the system prompts that the current account does not have the transit router feature activated.
RequestId	String	5D93C8B9-C354-5C3E-BEFB-BA8A2C314D68	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CheckTransitRouterService
&ClientToken=02fb3da4-130e-11e9-8e44-001****
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<CheckTransitRouterServiceResponse>
    <Enabled>true</Enabled>
    <RequestId>5D93C8B9-C354-5C3E-BEFB-BA8A2C314D68</RequestId>
</CheckTransitRouterServiceResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "Enabled" : "true",
  "RequestId" : "5D93C8B9-C354-5C3E-BEFB-BA8A2C314D68"
}
```

Error codes

For a list of error codes, visit the API Error Center.

8.3. CreateTransitRouter

Creates an Enterprise Edition transit router.

Usage notes

You can call `CreateTransitRouter` to create an Enterprise Edition transit router. For more information about the regions that support Enterprise Edition transit routers, see What is CEN?

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateTransitRouter	The operation that you want to perform. Set the value to **CreateTransitRouter**.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must make sure that it is unique among different requests. The token can contain only ASCII characters.
CenId	String	Yes	cen-j3jzhw1zpau2km****	The ID of the CEN instance.
RegionId	String	Yes	cn-shanghai	The ID of the region where the Enterprise Edition transit router is deployed. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
TransitRouterName	String	No	testname	The name of the Enterprise Edition transit router. The name must be 2 to 128 characters in length and can contain letters, digits, periods (.), underscores (_), and hyphens (-). The name must start with a letter but cannot start with `http://` or `https://`.
TransitRouterDescription	String	No	testdesc	The description of the Enterprise Edition transit router instance. The description must be 2 to 256 characters in length. The description must start with a letter but cannot start with `http://` or `https://`.

Parameter	Type	Required	Example	Description
DryRun	Boolean	No	false	Specifies whether to precheck the request. Check items include permissions and the status of the specified cloud resources. Valid values: • **false** (default): sends a request. If the request passes the precheck, an Enterprise Edition transit router is created. • **true**: sends a request for precheck only. No Enterprise Edition transit router is created after the request passes the precheck. If you use this value, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails the precheck, an error message is returned. If the request passes the precheck, the `DryRunOperation` error code is returned.
SupportMulticast	Boolean	No	false	Specifies whether to enable the multicast feature for the Enterprise Edition transit router. Valid values: • **false** (default): no • **true**: yes The multicast feature is supported only in specific regions. You can call ListTransitRouterAvailableResource to query the regions that support multicast.

Response parameters

Parameter	Type	Example	Description
TransitRouterId	String	tr-uf6llz2286805i44g****	The ID of the Enterprise Edition transit router.
RequestId	String	404DA7EC-F495-44B5-B543-6EDCDF90F3D1	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateTransitRouter
&ClientToken=02fb3da4-130e-11e9-8e44-001****
&CenId=cen-j3jzhw1zpau2km****
&RegionId=cn-shanghai
&TransitRouterName=testname
&TransitRouterDescription=testdesc
&DryRun=false
&SupportMulticast=false
&<Common request parameters>
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<CreateTransitRouterResponse>
<RequestId>404DA7EC-F495-44B5-B543-6EDCDF90F3D1</RequestId>
<TransitRouterId>tr-uf6llz2286805i44g****</TransitRouterId>
</CreateTransitRouterResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "404DA7EC-F495-44B5-B543-6EDCDF90F3D1",
  "TransitRouterId" : "tr-uf6llz2286805i44g****"
}
```

Error code

HttpCode	Error code	Error message	Description
400	InstanceExist.TransitRouterInstance	The instance already exists.	The error message returned because a transit router with the same ID already exists in the current region. Transit router IDs must be unique in the same region.

For a list of error codes, visit the API Error Center.

8.4. DeleteTransitRouter

Deletes an Enterprise Edition transit router.

Prerequisites

Before you delete an Enterprise Edition transit router, make sure that the following prerequisites are met:

- The transit router to be deleted is of Enterprise Edition. For more information, see View the edition of a transit router.
- If the Enterprise Edition transit router that you want to delete is connected to a network instance in the same region, delete the connection first. For more information, see Delete a network instance connection.
- If the Enterprise Edition transit router that you want to delete is connected to a network instance in a different region, delete the connection first. For more information, see ListTransitRouterPeerAttachments.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DeleteTransitRouter	The operation that you want to perform. Set the value to **DeleteTransitRouter**.
TransitRouterId	String	Yes	tr-uf654ttymmljlvh2x****	The ID of the Enterprise Edition transit router.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must make sure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.

Parameter	Type	Required	Example	Description
DryRun	Boolean	No	false	Specifies whether to only precheck the request. Check items include permissions and the status of the transit router. Valid values: • **false** (default): sends a normal request. If the request passes the precheck, the transit router is deleted. • **true**: sends a request for precheck only. No transit router is deleted after the request passes the precheck. If you select this option, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails to pass the precheck, the system returns an error. If the request passes the precheck, the system returns the ID of the request.

Response parameters

Parameter	Type	Example	Description
RequestId	String	6DE3EE92-39C8-4BBD-A3AD-F568D74741BB	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DeleteTransitRouter
&TransitRouterId=tr-uf654ttymmljlvh2x****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DeleteTransitRouterResponse>
  <RequestId>6DE3EE92-39C8-4BBD-A3AD-F568D74741BB</RequestId>
</DeleteTransitRouterResponse>
```

`JSON` format

```
{"RequestId":"6DE3EE92-39C8-4BBD-A3AD-F568D74741BB"}
```

Error codes

HttpCode	Error code	Error message	Description
400	OperationFailed.DeleteTransitRouter	Operation failed because TransitRouterRouteEntry exists	The error message returned because the specified transit router cannot be deleted. Route entries are configured for the specified transit router.
400	OperationFailed.DeleteTransitRouter	Operation failed because TransitRouterRouteTable exists	The error message returned because the specified transit router cannot be deleted. Custom route tables are created for the transit router.
400	IncorrectStatus.TransitRouterInstance	The status of TransitRouter is incorrect.	The error message returned because the transit router cannot be deleted in the current state.

For a list of error codes, visit the API Error Center.

8.5. UpdateTransitRouter

Modifies the name and description of a transit router.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	UpdateTransitRouter	The operation that you want to perform. Set the value to **UpdateTransitRouter**.
RegionId	String	Yes	cn-shanghai	The ID of the region where the transit router is deployed. You can call the DescribeRegions operation to query region IDs.
TransitRouterId	String	Yes	tr-uf654ttymmljlvh2x****	The ID of the transit router.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must make sure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether to only precheck the request. Check items include permissions and the status of the transit router. Valid values: • **false**(default): sends a normal request. If the request passes the precheck, the information of the transit router is modified. • **true**: sends a request for precheck only. The information of the transit router is not modified after the request passes the precheck. If you select this option, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails to pass the precheck, the system returns an error. If the request passes the precheck, the system returns the ID of the request.
TransitRouterName	String	No	testname	The name of the transit router. The name must be 2 to 128 characters in length, and can contain digits, periods (.), underscores (_), and hyphens (-). It must start with a letter and cannot start with `http://` or `https://`.
TransitRouterDescription	String	No	testdesc	The description of the transit router. The description must be 2 to 256 characters in length. The description must start with a letter but cannot start with `http://` or `https://`.

Response parameters

Parameter	Type	Example	Description
RequestId	String	E9963DD7-998B-4F92-892D-8293CB49EE81	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=UpdateTransitRouter
&RegionId=cn-shanghai
&TransitRouterId=tr-uf654ttymmljlvh2x****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<UpdateTransitRouterResponse>
  <RequestId>E9963DD7-998B-4F92-892D-8293CB49EE81</RequestId>
</UpdateTransitRouterResponse>
```

`JSON` format

```
{
  "RequestId": "E9963DD7-998B-4F92-892D-8293CB49EE81"
}
```

Error codes

For a list of error codes, visit the API Error Center.

8.6. ListTransitRouters

Queries the transit routers connected to a CEN instance.

Usage notes

You can set the **RegionId** and **TransitRouterId** parameters based on your requirements.

- If you do not set **RegionId** or **TransitRouterId**, the system queries all transit routers connected to the specified CEN instance.
- If you set only **RegionId**, the system queries transit routers that are deployed in the specified region.
- If you set only **TransitRouterId**, the system queries the specified transit router.
- If you set both **RegionId** and **TransitRouterId**, the system queries the specified transit router in the specified region.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ListTransitRouters	The operation that you want to perform. Set the value to **ListTransitRouters**.
PageNumber	Integer	No	1	The page number of the page to return. Default value: **1**.
PageSize	Integer	No	10	The number of entries to return on each page. Valid values: **1** to **50**. Default value: **10**.
CenId	String	Yes	cen-j3jzhw1zpau2km****	The ID of the CEN instance.
TransitRouterId	String	No	tr-uf654ttymmljlvh2x****	The ID of the transit router.
RegionId	String	No	cn-qingdao	The ID of the region where the transit router is deployed. You can call the DescribeRegions operation to query the most recent region list.

Response parameters

Parameter	Type	Example	Description
PageSize	Integer	10	The number of entries returned per page.
RequestId	String	68521297-5FA6-46CB-B4EB-658F1C68C8CC	The ID of the request.
PageNumber	Integer	1	The number of the returned page.
TotalCount	Integer	2	The number of entries returned.
TransitRouters	Array of TransitRouter		A list of transit routers.
CreationTime	String	2021-03-15T09:39Z	The time when the transit router was created. The time follows the ISO8601 standard in the YYYY-MM-DDThh:mmZ format. The time is displayed in UTC.
Type	String	Enterprise	The edition of the transit router. Valid values: • **Enterprise**: Enhance Edition • **Basic**: Basic Edition
Status	String	Active	The status of the transit router. Valid values: • **Creating**: The transit router is being created. • **Active**: The transit router is available. • **Modifying**: The transit router is being modified • **Deleting**: The transit router is being deleted. • **Upgrading**: The transit router is being upgraded.
TransitRouterId	String	tr-bp1su1ytdxtataupl****	The ID of the transit router.
TransitRouterDescription	String	testdesc	The description of the transit router.
TransitRouterName	String	testname	The name of the transit router.
CenId	String	cen-j3jzhw1zpau2km****	The ID of the CEN instance.
AliUid	Long	253460731706911258	The ID of the Alibaba Cloud account to which the CEN instance belongs.
RegionId	String	cn-qingdao	The ID of the region where the transit router is deployed.
SupportMulticast	Boolean	false	Indicates whether multicast is enabled for the transit router. Valid values: • **true**: enabled • **false**: disabled

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ListTransitRouters
&PageNumber=1
&PageSize=10
&CenId=cen-j3jzhw1zpau2km****
&TransitRouterId=tr-uf654ttymmljlvh2x****
&RegionId=cn-qingdao
&<Common request parameters>
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<ListTransitRoutersResponse>
    <TotalCount>2</TotalCount>
    <RequestId>68521297-5FA6-46CB-B4EB-658F1C68C8CC</RequestId>
    <PageSize>10</PageSize>
    <PageNumber>1</PageNumber>
    <TransitRouters>
        <Status>Active</Status>
        <Type>Enterprise</Type>
        <CenId>cen-j3jzhw1zpau2km****</CenId>
        <CreationTime>2021-03-15T09:39Z</CreationTime>
        <TransitRouterName>zxtest</TransitRouterName>
        <RegionId>cn-hangzhou</RegionId>
        <TransitRouterId>tr-bp1su1ytdxtataupl****</TransitRouterId>
        <AliUid>253460731706911258</AliUid>
    </TransitRouters>
    <TransitRouters>
        <Status>Active</Status>
        <Type>Basic</Type>
        <CenId>cen-j3jzhw1zpau2km****</CenId>
        <CreationTime>2021-03-22T02:11Z</CreationTime>
        <RegionId>cn-qingdao</RegionId>
        <TransitRouterId>tr-m5eq27g6bndum7e88****</TransitRouterId>
        <AliUid>253460731706911258</AliUid>
    </TransitRouters>
</ListTransitRoutersResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "TotalCount" : 2,
  "RequestId" : "68521297-5FA6-46CB-B4EB-658F1C68C8CC",
  "PageSize" : 10,
  "PageNumber" : 1,
  "TransitRouters" : [ {
    "Status" : "Active",
    "Type" : "Enterprise",
    "CenId" : "cen-j3jzhw1zpau2km****",
    "CreationTime" : "2021-03-15T09:39Z",
    "TransitRouterName" : "zxtest",
    "RegionId" : "cn-hangzhou",
    "TransitRouterId" : "tr-bp1su1ytdxtataupl****",
    "AliUid" : "253460731706911258"
  }, {
    "Status" : "Active",
    "Type" : "Basic",
    "CenId" : "cen-j3jzhw1zpau2km****",
    "CreationTime" : "2021-03-22T02:11Z",
    "RegionId" : "cn-qingdao",
    "TransitRouterId" : "tr-m5eq27g6bndum7e88****",
    "AliUid" : "253460731706911258"
  } ]
}
```

Error codes

For a list of error codes, visit the API Error Center.

8.7. ListTransitRouterAvailableResource

Queries the zones that support Enterprise Edition transit routers in a specified region.

Usage notes

You can call `ListTransitRouterAvailableResource` to query the zones that support Enterprise Edition transit routers in a specified region. If no zone is returned, it indicates that Enterprise Edition transit routers are not supported in the specified region.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ListTransitRouterAvailableResource	The operation that you want to perform. Set the value to **ListTransitRouterAvailableResource**.
RegionId	String	Yes	ap-southeast-2	The ID of the region where the Enterprise Edition transit router is deployed. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
SupportMulticast	Boolean	No	false	Specifies whether to query only the zones that support the multicast feature. Valid values: • **true**: yes • **false** (default): no

Response parameters

Parameter	Type	Example	Description
RequestId	String	198CCB80-394B-5985-A129-7297B9367F6D	The ID of the request.
SlaveZones	Array of String	ap-southeast-2a	The ID of the secondary zone. You can call DescribeZones to query zones by ID.
MasterZones	Array of String	ap-southeast-2b	The ID of the primary zone.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ListTransitRouterAvailableResource
&RegionId=ap-southeast-2
&SupportMulticast=false
&<Common request parameters>
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<ListTransitRouterAvailableResourceResponse>
    <SlaveZones>ap-southeast-2b</SlaveZones>
    <SlaveZones>ap-southeast-2a</SlaveZones>
    <RequestId>198CCB80-394B-5985-A129-7297B9367F6D</RequestId>
    <MasterZones>ap-southeast-2b</MasterZones>
</ListTransitRouterAvailableResourceResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "SlaveZones" : [ "ap-southeast-2b", "ap-southeast-2a" ],
  "RequestId" : "198CCB80-394B-5985-A129-7297B9367F6D",
  "MasterZones" : [ "ap-southeast-2b" ]
}
```

Error codes

For a list of error codes, visit the API Error Center.

8.8. GrantInstanceToTransitRouter

Grants a transit router permissions to connect to network instances that belong to another Alibaba Cloud account.

Usage notes

- `GrantInstanceToTransitRouter` grants transit routes permissions to connect only to virtual private clouds (VPCs) and virtual border routers (VBRs) that belong to another Alibaba Cloud account.

  If you want to grant transit routers permissions to connect to Cloud Connect Network (CCN) instances, call the GrantInstanceToCbn operation.
- Before you call `GrantInstanceToTransitRouter`, take note of the billing rules, permission limits, and prerequisites on permission management of transit routers. For more information, see Acquire permissions to connect to a network instance that belongs to another account.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	GrantInstanceToTransitRouter	The operation that you want to perform. Set the value to **GrantInstanceToTransitRouter**.
CenId	String	Yes	cen-44m0p68spvlrqq****	Enter the ID of the Cloud Enterprise Network (CEN) instance to which the transit router belongs.
InstanceId	String	Yes	vpc-bp1h8vbrbcgohcju5****	The ID of the network instance.
InstanceType	String	Yes	VPC	The type of the network instance. Valid values: • **VPC**: VPC • **ExpressConnect**: VBR
RegionId	String	Yes	cn-hangzhou	The ID of the region where the network instance is deployed. You can call the DescribeChildInstanceRegions operation to query the most recent region list.

Parameter	Type	Required	Example	Description
CenOwnerId	Long	Yes	253460731706911258	The ID of the Alibaba Cloud account to which the CEN instance belongs.
OrderType	String	No	PayByCenOwner	The entity that pays the fees of the network instance. Valid values: • **PayByCenOwner**: the Alibaba Cloud account that owns the CEN instance. • **PayByResourceOwner**: the Alibaba Cloud account that owns the network instance.

Response parameters

Parameter	Type	Example	Description
RequestId	String	C6E5992C-A57B-5A6C-9B26-568074DC68BA	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=GrantInstanceToTransitRouter
&CenId=cen-44m0p68spvlrqq****
&InstanceId=vpc-bp1h8vbrbcgohcju5****
&InstanceType=VPC
&RegionId=cn-hangzhou
&CenOwnerId=253460731706911258
&OrderType=PayByCenOwner
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<GrantInstanceToTransitRouterResponse>
    <RequestId>C6E5992C-A57B-5A6C-9B26-568074DC68BA</RequestId>
</GrantInstanceToTransitRouterResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "C6E5992C-A57B-5A6C-9B26-568074DC68BA"
}
```

Error codes

For a list of error codes, visit the API Error Center.

8.9. RevokeInstanceFromTransitRouter

Revokes the permissions that a transit router uses to connect to network instances that belong to another Alibaba Cloud account.

Usage notes

`RevokeInstanceFromTransitRouter` disallows transit routers only from connecting virtual private clouds (VPCs) and virtual border routers (VBRs).

If you want to disallow transit routers from connecting to Cloud Connect Network (CCN) instances, call the RevokeInstanceFromCbn operation.

Prerequisites

Before you call `RevokeInstanceFromTransitRouter`, you must detach the network instances from the transit router.

- For more information about how to detach VPCs from an Enterprise Edition transit router, see DeleteTransitRouterVpcAttachment.
- For more information about how to detach VBRs from an Enterprise Edition transit router, see DeleteTransitRouterVbrAttachment.
- For more information about how to detach network instances from a Basic Edition transit router, see DetachCenChildInstance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	RevokeInstanceFromTransitRouter	The operation that you want to perform. Set the value to **RevokeInstanceFromTransitRouter**.
CenId	String	Yes	cen-44m0p68spvlrqq****	Enter the ID of the Cloud Enterprise Network (CEN) instance to which the transit router belongs.
InstanceId	String	Yes	vpc-bp1h8vbrbcgohcju5****	The ID of the network instance.
InstanceType	String	Yes	VPC	The type of the network instance. Valid values: • **VPC**: VPC • **ExpressConnect**: VBR
RegionId	String	Yes	cn-hangzhou	The ID of the region where the network instance is deployed. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
CenOwnerId	Long	Yes	253460731706911258	The ID of the Alibaba Cloud account to which the CEN instance belongs.

Response parameters

Parameter	Type	Example	Description
RequestId	String	AA4BFFD1-5090-5896-935F-4B353557F1A8	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=RevokeInstanceFromTransitRouter
&CenId=cen-44m0p68spvlrqq****
&InstanceId=vpc-bp1h8vbrbcgohcju5****
&InstanceType=VPC
&RegionId=cn-hangzhou
&CenOwnerId=253460731706911258
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<RevokeInstanceFromTransitRouterResponse>
    <RequestId>AA4BFFD1-5090-5896-935F-4B353557F1A8</RequestId>
</RevokeInstanceFromTransitRouterResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "AA4BFFD1-5090-5896-935F-4B353557F1A8"
}
```

Error codes

For a list of error codes, visit the API Error Center.

9.Network instance connections

9.1. VPC connections

9.1.1. CreateTransitRouterVpcAttachment

Creates a virtual private cloud (VPC) connection on an Enterprise Edition transit router.

Prerequisites

Before you call this operation, make sure that the following requirements are met:

- The VPC has at least two vSwitches that are deployed in different zones supported by Enterprise Edition transit routers. For more information, see Regions and zones supported by Enterprise Edition transit routers.
- To connect to a network instance that belongs to another Alibaba Cloud account, you must first acquire the permissions from the account. For more information, see Acquire permissions to connect to a network instance that belongs to another account.
- VPC connections incur fees. Take note of the billing rules of VPC connections before you create a VPC connection. For more information, see Billing.

Usage notes

You can use the following methods to create a VPC connection on an Enterprise Edition transit router:

- If an Enterprise Edition transit router is already created in the region where you want to create a VPC connection, set **VpcId**, **ZoneMappings.N.VSwitchId**, **ZoneMappings.N.ZoneId**, and **TransitRouterId**.
- If no Enterprise Edition transit router is created in the region where you want to create a VPC connection, set **VpcId**, **ZoneMappings.N.VSwitchId**, **ZoneMappings.N.ZoneId**, **CenId**, and **RegionId**. When you create a VPC connection, the system automatically creates an Enterprise Edition transit router in the specified region.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateTransitRouterVpcAttachment	The operation that you want to perform. Set the value to **CreateTransitRouterVpcAttachment**.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must make sure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
CenId	String	No	cen-j3jzhw1zpau2km****	The ID of the CEN instance.
TransitRouterId	String	No	tr-bp1su1ytdxtataupl****	The ID of the Enterprise Edition transit router.
RegionId	String	No	cn-hangzhou	The region ID of the VPC. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
TransitRouterAttachmentName	String	No	testname	The name of the VPC connection. The name must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). It must start with a letter.

Parameter	Type	Required	Example	Description
TransitRouterAttachmentDescription	String	No	testname	The description of the VPC connection. The description must be 2 to 256 characters in length. The description must start with a letter but cannot start with `http://` or `https://`.
VpcId	String	Yes	vpc-bp1kbjcre9vtsebo1****	The ID of the VPC.
VpcOwnerId	Long	No	253460731706911258	The ID of the Alibaba Cloud account to which the VPC belongs. The default value is the ID of the current Alibaba Cloud account. **Note** If you want to connect to a network instance that belongs to another account, this parameter is required.
ChargeType	String	No	POSTPAY	The billing method. Default value: **POSTPAY**, which specifies the pay-as-you-go billing method.
DryRun	Boolean	No	false	Specifies whether to perform a precheck to check information such as the permissions and instance status. Valid values: • **false** (default): sends the request. If the request passes the precheck, the VPC connection is created. • **true**: sends a precheck request. No VPC connection is created. If you use this value, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails the precheck, an error message is returned. If the request passes the precheck, the `DryRunOperation` error code is returned.
ZoneMappings.N.VSwitchId	String	Yes	vsw-bp1a214sbus8z3b54****	A vSwitch that is deployed in a zone supported by Enterprise Edition transit routers. You can specify at most two zones.
ZoneMappings.N.ZoneId	String	Yes	cn-hangzhou-h	The ID of the zone supported by Enterprise Edition transit routers. You can call the DescribeZones operation to query zone IDs. You can specify at most two zones.

Response parameters

Parameter	Type	Example	Description
TransitRouterAttachmentId	String	tr-attach-ia340z7xis7t5s****	The ID of the VPC connection.
RequestId	String	C087A369-82B9-43EF-91F4-4B63A9C6E6B6	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateTransitRouterVpcAttachment
&ClientToken=02fb3da4-130e-11e9-8e44-001****
&CenId=cen-j3jzhw1zpau2km****
&TransitRouterId=tr-bp1su1ytdxtataupl****
&RegionId=cn-hangzhou
&TransitRouterAttachmentName=testname
&TransitRouterAttachmentDescription=testname
&VpcId=vpc-bp1kbjcre9vtsebo1****
&VpcOwnerId=253460731706911258
&ChargeType=POSTPAY
&DryRun=false
&ZoneMappings=[{"VSwitchId":"vsw-bp1a214sbus8z3b54****","ZoneId":"cn-hangzhou-h"}]
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<CreateTransitRouterVpcAttachmentResponse>
<TransitRouterAttachmentId>tr-attach-ia340z7xis7t5s****</TransitRouterAttachmentId>
<RequestId>C087A369-82B9-43EF-91F4-4B63A9C6E6B6</RequestId>
</CreateTransitRouterVpcAttachmentResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "TransitRouterAttachmentId" : "tr-attach-ia340z7xis7t5s****",
  "RequestId" : "C087A369-82B9-43EF-91F4-4B63A9C6E6B6"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	OperationUnsupported.TransitRouterRegionId	The specified TransitRouterRegion does not support the operation.	The error message returned because the specified region does not support the operation.
400	NoPermission.AliyunServiceRoleForCEN	You are not authorized to create the service linked role. Role Name: AliyunServiceRoleForCEN. Service Name: cen.aliyuncs.com. Make sure that the user has been granted the ram:CreateServiceLinkedRole permission.	The error message returned because you are unauthorized to create the service-linked role AliyunServiceRoleForCEN for the service cen.aliyuncs.com. You must acquire the ram:CreateServiceLinkedRole permission before you can perform the operation.
400	MissingParam.CenIdOrRegionId	Either CenId or RegionId must be specified.	The error message returned because CenId or RegionId is not set.
400	IllegalParam.ZoneId	The specified ZoneId is illegal.	The error message returned because the specified zone is invalid.
400	IllegalParam.ChargeType	The specified ChargeType is illegal.	The error message returned because the specified billing method is invalid.
400	InvalidTransitRouterId.NotFound	The specified TransitRouterId is not found.	The error message returned because the specified transit router does not exist.
400	IncorrectStatus.Attachment	The resource is not in a valid state for the attachment operation.	The error message returned because the operation is not allowed when the network instance is being processed. Try again later.
400	IncorrectStatus.Vpc	The resource is not in a valid state for the attachment operation.	The error message returned because the operation is not allowed when the network instance is being processed. Try again later.

For a list of error codes, visit the API Error Center.

9.1.2. DeleteTransitRouterVpcAttachment

Deletes a virtual private cloud (VPC) connection for an Enterprise Edition transit router.

Prerequisites

Before you delete a VPC connection, make sure that the following requirements are met:

- No associated forwarding correlation is established between the VPC connection and the route tables of the Enterprise Edition transit router. For more information about how to delete an associated forwarding correlation, see DissociateTransitRouterAttachmentFromRouteTable.
- No route learning correlation is established between the VPC connection and the route tables of the Enterprise Edition transit router. For more information about how to delete a route learning correlation, see DisableTransitRouterRouteTablePropagation.
- The route table of the VPC does not contain routes that point to the VPC connection.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DeleteTransitRouterVpcAttachment	The operation that you want to perform. Set the value to **DeleteTransitRouterVpcAttachment**.
TransitRouterAttachmentId	String	Yes	tr-attach-ia340z7xis7t5s****	The ID of the VPC connection.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must ensure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether to only precheck the request. Check items include permissions and the status of the specified instances. Valid values: • **false** (default): sends a normal request. If the request passes the precheck, the VPC connection is deleted. • **true**: sends a request for precheck only. The VPC connection is not deleted after the request passes the precheck. If you select this option, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails to pass the precheck, the system returns an error. If the request passes the precheck, the system returns the ID of the request.

Response parameters

Parameter	Type	Example	Description
RequestId	String	7E61D334-4025-41EF-9145-FC327B35301D	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DeleteTransitRouterVpcAttachment
&TransitRouterAttachmentId=tr-attach-ia340z7xis7t5s****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DeleteTransitRouterVpcAttachmentResponse>
  <RequestId>7E61D334-4025-41EF-9145-FC327B35301D</RequestId>
</DeleteTransitRouterVpcAttachmentResponse>
```

`JSON` format

```
{
  "RequestId": "7E61D334-4025-41EF-9145-FC327B35301D"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	OperationFailed.RouteTableAssociationExist	Operation failed because TransitRouterRouteTable exists	The error message returned because you cannot delete the network instance connection when an associated forwarding correlation is configured.
400	OperationFailed.RouteEntryExist	Operation failed because the TransitRouterAttachment exists in RouteTable.	The error message returned because you cannot perform the operation when the network instance connection is specified as the next hop of one or more routes in the route table.
400	OperationFailed.RouteTablePropagationExist	The specified TransitRouterAttachment has configured RouteTablePropagation. Please remove the configuration first.	The error message returned because you cannot perform the operation when a route learning correlation is configured for the network instance connection.

For a list of error codes, visit the API Error Center.

9.1.3. UpdateTransitRouterVpcAttachmentAttribute

Modifies the name and description of a virtual private cloud (VPC) connection on an Enterprise Edition transit router.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	UpdateTransitRouterVpcAttachmentAttribute	The operation that you want to perform. Set the value to **UpdateTransitRouterVpcAttachmentAttribute**.
TransitRouterAttachmentId	String	Yes	tr-attach-nls9fzkfat8934****	The ID of the VPC connection.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must ensure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
TransitRouterAttachmentName	String	No	testname	The name of the VPC connection. The name must be 2 to 128 characters in length and can contain digits, underscores (_), and hyphens (-). It must start with a letter.

Parameter	Type	Required	Example	Description
TransitRouterAttachmentDescription	String	No	testdesc	The description of the VPC connection. The description must be 2 to 256 characters in length. The description must start with a letter but cannot start with `http://` or `https://`.
DryRun	Boolean	No	false	Specifies whether to only precheck the request. Check items include permissions and the status of the specified instances. Valid values: • **false** (default): sends a normal request. If the request passes the precheck, the name and description of the VPC connection are modified. • **true**: sends a request for precheck only. The name and description of the VPC connection are not modified after the request passes the precheck. If you select this option, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails to pass the precheck, the system returns an error. If the request passes the precheck, the system returns the ID of the request.

Response parameters

Parameter	Type	Example	Description
RequestId	String	7E61D334-4025-41EF-9145-FC327B35301D	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=UpdateTransitRouterVpcAttachmentAttribute
&TransitRouterAttachmentId=tr-attach-nls9fzkfat8934****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<UpdateTransitRouterVpcAttachmentAttributeResponse>
  <RequestId>7E61D334-4025-41EF-9145-FC327B35301D</RequestId>
</UpdateTransitRouterVpcAttachmentAttributeResponse>
```

`JSON` format

```
{
  "RequestId": "7E61D334-4025-41EF-9145-FC327B35301D"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidTransitRouterAttachmentId.NotFound	TransitRouterAttachmentId is not found.	The error message returned because the specified ID of the network instance connection is invalid.

For a list of error codes, visit the API Error Center.

9.1.4. ListTransitRouterVpcAttachments

Queries virtual private cloud (VPC) connections on an Enterprise Edition transit router.

Usage notes

You can use the following methods to query VPC connections on an Enterprise Edition transit router:

- Specify the ID of the Enterprise Edition transit router.
- Specify the ID of the relevant Cloud Enterprise Network (CEN) instance and the region ID of the Enterprise Edition transit router.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ListTransitRouterVpcAttachments	The operation that you want to perform. Set the value to **ListTransitRouterVpcAttachments**.
CenId	String	No	cen-j3jzhw1zpau2km****	The ID of the CEN instance.
RegionId	String	No	cn-hangzhou	The region ID of the Enterprise Edition transit router. You can call the DescribeRegions operation to query the most recent region list.
TransitRouterAttachmentId	String	No	tr-attach-nls9fzkfat8934****	The ID of the VPC connection.
TransitRouterId	String	No	tr-bp1su1ytdxtataupl****	The ID of the Enterprise Edition transit router.
MaxResults	Integer	No	20	The number of entries to return on each page. Default value: **20**.
NextToken	String	No	FFmyTO70tTpLG6l3FmYAXGKPd****	The token that is used for the next query. Valid values: • If this is your first query or no next query is to be sent, ignore this parameter. • If a next query is to be sent, set the value to the value of NextToken that is returned from the last call.

Response parameters

Parameter	Type	Example	Description
NextToken	String	FFmyTO70tTpLG6l3FmYAXGKPd****	The token that is used for the next query. Valid values: • If **NextToken** is empty, it indicates that no next query is to be sent. • If **NextToken** is not empty, the value indicates the token that is used for the next query.
RequestId	String	C97FF53F-3EF8-4883-B459-60E171924B23	The ID of the request.
TotalCount	Integer	1	The total number of entries returned.
MaxResults	Integer	20	The number of entries returned per page.
TransitRouterAttachments	Array of TransitRouterAttachment		A list of VPC connections on the specified transit router.

Parameter	Type	Example	Description
CreationTime	String	2021-06-15T02:14Z	The time when the VPC connection is created. The time follows the ISO8601 standard in the YYYY-MM-DDThh:mmZ format. The time is displayed in UTC.
Status	String	Attached	The status of the VPC connection. Valid values: • **Attached**: The VPC connection is created on the transit router. • **Attaching**: The VPC connection is being created on the transit router. • **Detaching**: The VPC connection is being deleted from the transit router. • **Detached**: The VPC connection is deleted from the transit router.
VpcId	String	vpc-bp1h8vbrbcgohcju5****	The ID of the VPC.
TransitRouterAttachmentId	String	tr-attach-nls9fzkfat8934****	The ID of the VPC connection.
TransitRouterId	String	tr-bp1su1ytdxtataupl****	The ID of the Enterprise Edition transit router.
ResourceType	String	VPC	The type of resource to which the transit router is connected. Valid values: • **VPC**: VPC • **CCN**: CCN instance • **VBR**: VBR • **TR**: transit router
TransitRouterAttachmentDescription	String	testdesc	The description of the VPC connection.
VpcOwnerId	Long	253460731706911258	The ID of the Alibaba Cloud account to which the VPC belongs.
VpcRegionId	String	cn-hangzhou	The region ID of the VPC.
TransitRouterAttachmentName	String	testname	The name of the VPC connection.
ZoneMappings	Array of ZoneMapping		The primary and secondary zones of the VPC connection and the vSwitches and elastic network interfaces (ENIs) of the VPC.
ZoneId	String	cn-hangzhou-h	The ID of the zone.
VSwitchId	String	vsw-bp1a214sbus8z3b54****	The ID of the vSwitch.
NetworkInterfaceId	String	eni-bp149hmyaqegerml****	The ID of the ENI that is associated with the vSwitch of the Enterprise Edition transit router.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ListTransitRouterVpcAttachments
&CenId=cen-j3jzhwlzpau2km****
&RegionId=cn-hangzhou
&MaxResults=20
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<ListTransitRouterVpcAttachmentsResponse>
    <TotalCount>1</TotalCount>
    <RequestId>C97FF53F-3EF8-4883-B459-60E171924B23</RequestId>
    <MaxResults>20</MaxResults>
    <TransitRouterAttachments>
        <TransitRouterAttachmentId>tr-attach-nls9fzkfat8934****</TransitRouterAttachmentId>
        <Status>Attached</Status>
        <VpcId>vpc-bp1h8vbrbcgohcju5****</VpcId>
        <CreationTime>2021-06-15T02:14Z</CreationTime>
        <VpcRegionId>cn-hangzhou</VpcRegionId>
        <TransitRouterAttachmentName>test1</TransitRouterAttachmentName>
        <ResourceType>VPC</ResourceType>
        <ZoneMappings>
            <ZoneId>cn-hangzhou-h</ZoneId>
            <VSwitchId>vsw-bp1a214sbus8z3b54****</VSwitchId>
            <NetworkInterfaceId>eni-bp149hmyaqegerml****</NetworkInterfaceId>
        </ZoneMappings>
        <ZoneMappings>
            <ZoneId>cn-hangzhou-i</ZoneId>
            <VSwitchId>vsw-bp1w4ve8ikmzml84g****</VSwitchId>
            <NetworkInterfaceId>eni-bp11ablifhhtvw5i****</NetworkInterfaceId>
        </ZoneMappings>
        <VpcOwnerId>253460731706911258</VpcOwnerId>
        <TransitRouterId>tr-bp1su1ytdxtataupl****</TransitRouterId>
    </TransitRouterAttachments>
</ListTransitRouterVpcAttachmentsResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "TotalCount" : 1,
  "RequestId" : "C97FF53F-3EF8-4883-B459-60E171924B23",
  "MaxResults" : 20,
  "TransitRouterAttachments" : [ {
    "TransitRouterAttachmentId" : "tr-attach-nls9fzkfat8934****",
    "Status" : "Attached",
    "VpcId" : "vpc-bp1h8vbrbcgohcju5****",
    "CreationTime" : "2021-06-15T02:14Z",
    "VpcRegionId" : "cn-hangzhou",
    "TransitRouterAttachmentName" : "test1",
    "ResourceType" : "VPC",
    "ZoneMappings" : [ {
      "ZoneId" : "cn-hangzhou-h",
      "VSwitchId" : "vsw-bp1a214sbus8z3b54****",
      "NetworkInterfaceId" : "eni-bp149hmyaqegerml****"
    }, {
      "ZoneId" : "cn-hangzhou-i",
      "VSwitchId" : "vsw-bp1w4ve8ikmzml84g****",
      "NetworkInterfaceId" : "eni-bp11ablifhhtvw5i****"
    } ],
    "VpcOwnerId" : "253460731706911258",
    "TransitRouterId" : "tr-bp1sulytdxtataupl****"
  } ]
}
```

Error codes

HttpCode	Error code	Error message	Description
400	IllegalParam.NextToken	The specified NextToken is invalid.	The error message returned because NextToken is set to an invalid value.
400	IllegalParam.TrInstance	The specified TransitRouter is invalid.	The error message returned because TransitRouter is set to an invalid value.

For a list of error codes, visit the API Error Center.

9.2. VBR connections

9.2.1. CreateTransitRouterVbrAttachment

Creates a virtual border router (VBR) connection from an Enterprise Edition transit router.

Description

You can use the following methods to create a VBR connection from an Enterprise Edition transit router:

- If an Enterprise Edition transit router is already created in the region where you want to create a VBR connection, specify **VbrId** and **TransitRouterId**.
- If no Enterprise Edition transit router is created in the region where you want to create a VBR connection, specify **VbrId**, **CenId**, and **RegionId**. When you create a VBR connection, the system automatically creates an Enterprise Edition transit router in the specified region.

Limits

Enterprise Edition transit routers are supported only in specific regions. You can create a VBR connection only in these regions. For more information about the regions and zones that support Enterprise Edition transit routers, see Transit routers.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	CreateTransitRouterVbrAttachment	The operation that you want to perform. Set the value to **CreateTransitRouterVbrAttachment**.
VbrId	String	Yes	vbr-bp1svadp4lq38janc****	The ID of the VBR.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must make sure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
CenId	String	No	cen-j3jzhw1zpau2km****	The ID of the Cloud Enterprise Network (CEN) instance.
TransitRouterId	String	No	tr-bp1su1ytdxtataupl****	The ID of the Enterprise Edition transit router.
RegionId	String	No	cn-hangzhou	The region ID of the VBR. You can call the DescribeRegions operation to query the most recent region list.

Parameter	Type	Required	Example	Description
TransitRouterAttachmentName	String	No	testname	The name of the VBR connection. The name must be 2 to 128 characters in length and can contain digits, underscores (_), and hyphens (-). It must start with a letter.
TransitRouterAttachmentDescription	String	No	testdesc	The description of the VBR connection. The description must be 2 to 256 characters in length. It must start with a letter but cannot start with `http://` or `https://`.
VbrOwnerId	Long	No	1688111111111111	The ID of the Alibaba Cloud account to which the VBR belongs. The default value is the ID of the current Alibaba Cloud account. **Note** If you want to connect to a network instance that belongs to a different account, this parameter is required.
AutoPublishRouteEnabled	Boolean	No	false	Specifies whether to enable the Enterprise Edition transit router to automatically advertise routes to the VBR. Valid values: • **false** (default): no • **true**: yes
DryRun	Boolean	No	false	Specifies whether to precheck the request. Check items include permissions and the status of the specified instances. Valid values: • **false** (default): sends the request. If the request passes the precheck, the VBR connection is created. • **true**: sends a precheck request. No VBR connection is created after the request passes the precheck. If you select this option, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails to pass the precheck, the system returns an error. If the request passes the precheck, the system returns the ID of the request.

Response parameters

Parameter	Type	Example	Description
RequestId	String	C087A369-82B9-43EF-91F4-4B63A9C6E6B6	The ID of the request.
TransitRouterAttachmentId	String	tr-attach-ia340z7xis7t5s****	The ID of the VBR connection.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateTransitRouterVbrAttachment
&VbrId=vbr-bp1svadp41q38janc****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<CreateTransitRouterVbrAttachmentResponse>
  <TransitRouterAttachmentId>tr-attach-ia340z7xis7t5s****</TransitRouterAttachmentId>
  <RequestId>C087A369-82B9-43EF-91F4-4B63A9C6E6B6</RequestId>
</CreateTransitRouterVbrAttachmentResponse>
```

`JSON` format

```
{
  "TransitRouterAttachmentId": "tr-attach-ia340z7xis7t5s****",
  "RequestId": "C087A369-82B9-43EF-91F4-4B63A9C6E6B6"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	NoPermission.AliyunServiceRolePolicyForCEN	You are not authorized to create the service linked role. Role Name: AliyunServiceRolePolicyForCEN. Service Name: cen.aliyuncs.com. Make sure that the user has been granted the ram:CreateServiceLinkedRole permission.	The error message returned because you are unauthorized to create the service-linked role AliyunServiceRolePolicyForCEN for the service cen.aliyuncs.com. You must acquire the ram:CreateServiceLinkedRole permission before you can perform the operation.
400	OperationUnsupported.TransitRouterRegionId	The specified TransitRouterRegion does not support the operation.	The error message returned because the specified region does not support the operation.
400	InvalidCenId.NotFound	CenId is not found.	The error message returned because the specified CEN instance does not exist.

For a list of error codes, visit the API Error Center.

9.2.2. DeleteTransitRouterVbrAttachment

Deletes a virtual border router (VBR) connection for an Enterprise Edition transit router.

Prerequisites

Before you delete a VBR connection for an Enterprise Edition transit router, make sure that the following requirements are met:

- No associated forwarding correlation is established between the VBR connection and the route tables of the Enterprise Edition transit router. For more information about how to delete an associated forwarding correlation, see DissociateTransitRouterAttachmentFromRouteTable.
- No route learning correlation is established between the VBR connection and the route tables of the Enterprise Edition transit router. For more information about how to delete a route learning correlation, see DisableTransitRouterRouteTablePropagation.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DeleteTransitRouterVbrAttachment	The operation that you want to perform. Set the value to **DeleteTransitRouterVbrAttachment**.
TransitRouterAttachmentId	String	Yes	tr-attach-9nlnjv7by7n7a****	The ID of the VBR connection.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must ensure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.

Parameter	Type	Required	Example	Description
DryRun	Boolean	No	false	Specifies whether to only precheck the request. Check items include permissions and the status of the specified instances. Valid values: • **false** (default): sends a normal request. If the request passes the precheck, the VBR connection is deleted. • **true**: sends a request for precheck only. The VBR connection is not deleted after the request passes the precheck. If you select this option, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails to pass the precheck, the system returns an error. If the request passes the precheck, the system returns the ID of the request.

Response parameters

Parameter	Type	Example	Description
RequestId	String	3EDA94DE-0AE5-41FC-A91E-7170E408E0FD	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DeleteTransitRouterVbrAttachment
&TransitRouterAttachmentId=tr-attach-9nlnjv7by7n7a****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DeleteTransitRouterVbrAttachmentResponse>
  <RequestId>3EDA94DE-0AE5-41FC-A91E-7170E408E0FD</RequestId>
</DeleteTransitRouterVbrAttachmentResponse>
```

`JSON` format

```
{
  "RequestId": "3EDA94DE-0AE5-41FC-A91E-7170E408E0FD"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	OperationFailed.RouteTableAssociationExist	Operation failed because TransitRouterRouteTable exists	The error message returned because you cannot delete the network instance connection when an associated forwarding correlation is configured.
400	OperationFailed.RouteEntryExist	Operation failed because the TransitRouterAttachment exists in RouteTable.	The error message returned because you cannot perform the operation when the network instance connection is specified as the next hop of one or more routes in the route table.

For a list of error codes, visit the API Error Center.

9.2.3. UpdateTransitRouterVbrAttachmentAttribute

Modifies the settings of a virtual border router (VBR) connection on an Enterprise Edition transit router.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	UpdateTransitRouterVbrAttachmentAttribute	The operation that you want to perform. Set the value to **UpdateTransitRouterVbrAttachmentAttribute**.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must make sure that it is unique among different requests. The token can contain only ASCII characters.
TransitRouterAttachmentId	String	Yes	tr-attach-oyf70wfuorwx87****	The ID of the VBR connection.
TransitRouterAttachmentName	String	No	testname	The new name of the VBR connection. The name must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The name must start with a letter.
TransitRouterAttachmentDescription	String	No	testdesc	The new description of the VBR connection. The description must be 2 to 256 characters in length. The description must start with a letter but cannot start with `http://` or `https://`.
AutoPublishRouteEnabled	Boolean	No	true	Specifies whether to allow the Enterprise Edition transit router to automatically advertise routes to the VBR. Valid values: • **true**: yes • **false**: no
DryRun	Boolean	No	false	Specifies whether to perform a precheck to check information such as the permissions and instance status. Valid values: • **false** (default): sends a request. If the request passes the precheck, the name and description of the VBR connection are modified. • **true**: sends a request for precheck only. The name and description of the VBR connection are not modified after the request passes the precheck. If you use this value, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails the precheck, an error message is returned. If the request passes the precheck, the `DryRunOperation` error code is returned.

Response parameters

Parameter	Type	Example	Description
RequestId	String	91B36DC3-FF8A-45C3-AC1E-456B1789136D	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=UpdateTransitRouterVbrAttachmentAttribute
&ClientToken=02fb3da4-130e-11e9-8e44-001****
&TransitRouterAttachmentId=tr-attach-oyf70wfuorwx87****
&TransitRouterAttachmentName=testname
&TransitRouterAttachmentDescription=testdesc
&AutoPublishRouteEnabled=true
&DryRun=false
&<Common request parameters>
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<UpdateTransitRouterVbrAttachmentAttributeResponse>
<RequestId>91B36DC3-FF8A-45C3-AC1E-456B1789136D</RequestId>
</UpdateTransitRouterVbrAttachmentAttributeResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "91B36DC3-FF8A-45C3-AC1E-456B1789136D"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidTransitRouterAttachmentId.NotFound	TransitRouterAttachmentId is not found.	The error message returned because the ID of the network instance does not exist.

For a list of error codes, visit the API Error Center.

9.2.4. ListTransitRouterVbrAttachments

Queries virtual border router (VBR) connections on an Enterprise Edition transit router.

Description

You can use the following methods to query VBR connections on an Enterprise Edition transit router:

- Specify the ID of the Enterprise Edition transit router.
- Specify the ID of the relevant Cloud Enterprise Network (CEN) instance and the region ID of the Enterprise Edition transit router.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ListTransitRouterVbrAttachments	The operation that you want to perform. Set the value to **ListTransitRouterVbrAttachments**.
CenId	String	No	cen-j3jzhw1zpau2km****	The ID of the CEN instance.
RegionId	String	No	cn-hangzhou	The region ID of the Enterprise Edition transit router. You can call the DescribeRegions operation to query the most recent region list.

Parameter	Type	Required	Example	Description
TransitRouterAttachmentId	String	No	tr-attach-oyf70wfuorwx87****	The ID of the VBR connection.
TransitRouterId	String	No	tr-bp1su1ytdxtataupl****	The ID of the Enterprise Edition transit router.
MaxResults	Integer	No	20	The number of entries to return per page. Default value: **20**.
NextToken	String	No	dd20****	The token for returning the next page when the data is returned in more than one page.

Response parameters

Parameter	Type	Example	Description
MaxResults	Integer	20	The number of entries returned per page.
NextToken	String	dd20****	The token for returning the next page when the data is returned in more than one page.
RequestId	String	F42D9616-29EB-4E75-8CA8-9654D4E07501	The ID of the request.
TotalCount	Integer	1	The total number of entries returned.
TransitRouterAttachments	Array of TransitRouterAttachment		The list of VBR connections.
AutoPublishRouteEnabled	Boolean	false	Indicates whether the Enterprise Edition transit router automatically advertises routes to the VBR. Valid values: • **false** (default): no • **true**: yes
CreationTime	String	2021-06-15T15:20Z	The time when the VBR connection was established. The time follows the ISO 8601 standard in the yyyy-MM-ddThh:mm:ssZ format. The time is displayed in UTC.
ResourceType	String	VBR	The type of resource to which the transit router is connected. Valid values: • **VPC**: a virtual private cloud (VPC) • **CCN**: a Cloud Connect Network (CCN) instance • **VBR**: a virtual border router (VBR) • **TR**: a transit router
Status	String	Attached	The status of the VBR connection. Valid values: • **Attached**: The transit router is connected to the VBR. • **Attaching**: The transit router is connecting to the VBR. • **Detaching**: The transit router is disconnecting from the VBR. • **Detached**: The transit router is disconnected from the VBR.
TransitRouterAttachmentDescription	String	testdesc	The description of the VBR connection.

Parameter	Type	Example	Description
TransitRouterAttachmentId	String	tr-attach-oyf70wfuorwx87****	The ID of the VBR connection.
TransitRouterAttachmentName	String	testa	The name of the VBR connection.
TransitRouterId	String	tr-bp1su1ytdxtataupl****	The ID of the Enterprise Edition transit router.
VbrId	String	vbr-bp1svadp4lq38janc****	The ID of the VBR.
VbrOwnerId	Long	1688111111111111	The ID of the account to which the VBR belongs.
VbrRegionId	String	cn-hangzhou	The region ID of the VBR.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ListTransitRouterVbrAttachments
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ListTransitRouterVbrAttachmentsResponse>
  <TotalCount>1</TotalCount>
  <RequestId>F42D9616-29EB-4E75-8CA8-9654D4E07501</RequestId>
  <MaxResults>20</MaxResults>
  <TransitRouterAttachments>
        <TransitRouterAttachmentId>tr-attach-oyf70wfuorwx87****</TransitRouterAttachmentId>
        <Status>Attached</Status>
        <AutoPublishRouteEnabled>false</AutoPublishRouteEnabled>
        <VbrOwnerId>1688111111111111</VbrOwnerId>
        <CreationTime>2021-06-15T15:20Z</CreationTime>
        <TransitRouterAttachmentName>testa</TransitRouterAttachmentName>
        <VbrRegionId>cn-hangzhou</VbrRegionId>
        <ResourceType>VBR</ResourceType>
        <VbrId>vbr-bp1svadp4lq38janc****</VbrId>
  </TransitRouterAttachments>
</ListTransitRouterVbrAttachmentsResponse>
```

`JSON` format

```
{
  "TotalCount": 1,
  "RequestId": "F42D9616-29EB-4E75-8CA8-9654D4E07501",
  "MaxResults": 20,
  "TransitRouterAttachments": [
    {
      "TransitRouterAttachmentId": "tr-attach-oyf70wfuorwx87****",
      "Status": "Attached",
      "AutoPublishRouteEnabled": false,
      "VbrOwnerId": "1688111111111111",
      "CreationTime": "2021-06-15T15:20Z",
      "TransitRouterAttachmentName": "testa",
      "VbrRegionId": "cn-hangzhou",
      "ResourceType": "VBR",
      "VbrId": "vbr-bp1svadp4lq38janc****"
    }
  ]
}
```

Error codes

HttpCode	Error code	Error message	Description
400	IllegalParam.NextToken	The specified NextToken is invalid.	The error message returned because the value of NextToken is invalid.
400	IllegalParam.TrInstance	The specified TransitRouter is invalid.	The error message returned because the ID of the transit router is invalid.
400	IllegalParam.CenId	The specified CenId is invalid.	The error message returned because the ID of the CEN instance is invalid.

For a list of error codes, visit the API Error Center.

9.3. AttachCenChildInstance

Attaches a network instance to a Cloud Enterprise Network (CEN) instance.

Description

CEN allows you to attach a network instance that belongs to another Alibaba Cloud account. Before you attach the network instance, CEN must acquire permissions to access the network instance that belongs to another Alibaba Cloud account.

- For more information about how to grant CEN permissions on accessing virtual private clouds (VPCs) that belong to another Alibaba Cloud account, see GrantInstanceToCen.
- For more information about how to grant CEN permissions on accessing Cloud Connect Network (CCN) instances that belong to another Alibaba Cloud account, see GrantInstanceToCbn.
- By default, you cannot grant CEN permissions on accessing virtual border routers (VBRs) that belong to another Alibaba Cloud account. To grant the permissions, you must submit a ticket.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	AttachCenChildInstance	The operation that you want to perform. Set the value to **AttachCenChildInstance**.
CenId	String	Yes	cen-7qthudw0ll6jmc****	The ID of the CEN instance.
ChildInstanceId	String	Yes	vpc-bp18sth14qii3pnvx****	The ID of the network instance that you want to attach to the CEN instance.
ChildInstanceRegionId	String	Yes	cn-hangzhou	The region ID of the network instance. You can call the DescribeRegions operation to query the most recent region list.
ChildInstanceType	String	Yes	VPC	The type of the network instance. Valid values: • **VPC**: VPC • **VBR**: VBR • **CCN**: CCN instance
ChildInstanceOwnerId	Long	No	1688000000000000	The ID of the Alibaba Cloud account to which the network instance belongs. **Note** This parameter is required if you want to attach a network instance that belongs to another Alibaba Cloud account.

Response parameters

Parameter	Type	Example	Description
RequestId	String	A278B8A6-A5B8-4FDE-9F70-95F0F6A1D68A	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=AttachCenChildInstance
&CenId=cen-7qthudw0ll6jmc****
&ChildInstanceId=vpc-bp18sth14qii3pnvx****
&ChildInstanceRegionId=cn-hangzhou
&ChildInstanceType=VPC
&<Common request parameters>
```

Sample success responses

`XML` format

```
<AttachCenChildInstanceResponse>
      <RequestId>A278B8A6-A5B8-4FDE-9F70-95F0F6A1D68A</RequestId>
</AttachCenChildInstanceResponse>
```

`JSON` format

```
{
    "RequestId":"A278B8A6-A5B8-4FDE-9F70-95F0F6A1D68A"
}
```

Error codes

HttpCode	Error code	Error message	Description
409	Forbbiden.AttachChildInstanceAcrossUid	Operation is invalid because the child-instance is not authorized to CEN.	The error message returned because the CEN instance does not have the required permissions. Grant CEN the required permissions and try again.
403	Forbidden.AttachChildInstance	The attached VBR on some access device models are not supported. Please submit a ticket to continue using this VBR on CEN.	The error message returned because the VBR cannot be attached to the CEN instance. To resolve this issue, submit a ticket.
409	InvalidOperation.ChildInstanceAlreadyAttached	Operation is invalid because the child-instance has already been attached to another CEN.	The error message returned because the network instance is already attached to another CEN instance.
400	OperationFailed.InvalidTransitRouter	Operation failed because the transit router is not supported.	The error message returned because the route table of the transit router does not support this operation.

For a list of error codes, visit the API Error Center.

9.4. DetachCenChildInstance

Detaches a network instance from a Cloud Enterprise Network (CEN) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description

Parameter	Type	Required	Example	Description
Action	String	No	DetachCenChildInstance	The operation that you want to perform. Set the value to **DetachCenChildInstance**.
CenId	String	Yes	cen-7qthudw0ll6jmx****	The ID of the CEN instance.
ChildInstanceId	String	Yes	vpc-bp18sth14qii3pnvx****	The ID of the network instance that you want to detach from the CEN instance.
ChildInstanceRegionId	String	Yes	cn-hangzhou	The region ID of the network instance. You can call the DescribeRegions operation to query the most recent region list.
ChildInstanceType	String	Yes	VPC	The type of the network instance. Valid values: • **VPC**: virtual private cloud (VPC) • **VBR**: virtual border router (VBR) • **CCN**: Cloud Connect Network (CCN) instance
ChildInstanceOwnerId	Long	No	1699000000000000	The ID of the Alibaba Cloud account to which the network instance belongs.
CenOwnerId	Long	No	1688000000000000	The ID of the Alibaba Cloud account to which the CEN instance belongs.

Response parameters

Parameter	Type	Example	Description
RequestId	String	0C2EE7A8-74D4-4081-8236-CEBDE3BBCF50	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DetachCenChildInstance
&CenId=cen-7qthudw0ll6jmx****
&ChildInstanceId=vpc-bp18sth14qii3pnvx****
&ChildInstanceRegionId=cn-hangzhou
&ChildInstanceType=VPC
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DetachCenChildInstanceResponse>
  <RequestId>0C2EE7A8-74D4-4081-8236-CEBDE3BBCF50</RequestId>
</DetachCenChildInstanceResponse>
```

`JSON` format

```
{
  "RequestId": "0C2EE7A8-74D4-4081-8236-CEBDE3BBCF50"
}
```

Error codes

For a list of error codes, visit the API Error Center.

9.5. DescribeCenAttachedChildInstanceAttribute

Queries a specified network instance that is attached to a Cloud Enterprise Network (CEN) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeCenAttachedChildInstanceAttribute	The operation that you want to perform. Set the value to **DescribeCenAttachedChildInstanceAttribute**.
CenId	String	Yes	cen-5mv960yjhja0dh****	The ID of the CEN instance.
ChildInstanceId	String	Yes	vpc-2zebdboka7d7t37vo****	The ID of the network instance that is attached to the CEN instance.
ChildInstanceRegionId	String	Yes	cn-beijing	The region ID of the network instance. You can call the DescribeRegions operation to query the most recent region list.
ChildInstanceType	String	Yes	VPC	The type of the network instance. Valid values: • **VPC**: virtual private cloud (VPC) • **VBR**: virtual border router (VBR) • **CCN**: Cloud Connect Network (CCN) instance

Response parameters

Parameter	Type	Example	Description
CenId	String	cen-5mv960yjhja0dh****	The ID of the CEN instance.
ChildInstanceAttachTime	String	2018-07-30T07:53Z	The time when the network instance was attached to the CEN instance. The time follows the ISO 8601 standard in the yyyy-MM-ddThh:mmZ format. The time is displayed in UTC.
ChildInstanceId	String	vpc-2zebdboka7d7t37vo****	The ID of the network instance.
ChildInstanceName	String	defaultvpc	The name of the network instance.
ChildInstanceOwnerId	Long	1688000000000000	The ID of the Alibaba Cloud account to which the network instance belongs.
ChildInstanceRegionId	String	cn-beijing	The region ID of the network instance.
ChildInstanceType	String	VPC	The type of the network instance. Valid values: • **VPC**: VPC • **VBR**: VBR • **CCN**: CCN instance

Parameter	Type	Example	Description
RequestId	String	ADD98358-D265-4060-87CB-A2427F5A8944	The ID of the request.
Status	String	Attached	Indicates whether the network instance is attached to the CEN instance. • **Attaching**: The network instance is being attached to the CEN instance. • **Attached**: The network instance is attached to the CEN instance. • **Detaching**: The network instance is being detached from the CEN instance.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeCenAttachedChildInstanceAttribute
&CenId=cen-5mv960yjhja0dh****
&ChildInstanceId=vpc-2zebdboka7d7t37vo****
&ChildInstanceRegionId=cn-beijing
&ChildInstanceType=VPC
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeCenAttachedChildInstanceAttributeResponse>
    <Status>Attached</Status>
    <ChildInstanceOwnerId>1688000000000000</ChildInstanceOwnerId>
    <ChildInstanceId>vpc-2zebdboka7d7t37vo****</ChildInstanceId>
    <RequestId>ADD98358-D265-4060-87CB-A2427F5A8944</RequestId>
    <ChildInstanceName>defaultvpc</ChildInstanceName>
    <ChildInstanceRegionId>cn-beijing</ChildInstanceRegionId>
    <CenId>cen-5mv960yjhja0dh****</CenId>
    <ChildInstanceAttachTime>2018-07-30T07:53Z</ChildInstanceAttachTime>
    <ChildInstanceType>VPC</ChildInstanceType>
</DescribeCenAttachedChildInstanceAttributeResponse>
```

`JSON` format

```
{
    "Status": "Attached",
    "ChildInstanceOwnerId": "1688000000000000",
    "ChildInstanceId": "vpc-2zebdboka7d7t37vo****",
    "RequestId": "ADD98358-D265-4060-87CB-A2427F5A8944",
    "ChildInstanceName": "defaultvpc",
    "ChildInstanceRegionId": "cn-beijing",
    "CenId": "cen-5mv960yjhja0dh****",
    "ChildInstanceAttachTime": "2018-07-30T07:53Z",
    "ChildInstanceType": "VPC"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	SystemBusy	The system is busy. Please try again later.	The error message returned because the system is busy. Try again later.

For a list of error codes, visit the API Error Center.

9.6. DescribeCenAttachedChildInstances

Queries the network instances that are attached to a Cloud Enterprise Network (CEN) instance.

Description

You can use one of the following methods to query the information about the network instances that are attached to a CEN instance:

- You can query all the network instances that are attached to a CEN instance by setting the `CenId` parameter.
- You can query the network instances that are attached to a CEN instance in a specified region by setting the `CenId` and `ChildInstanceRegionId` parameters.
- You can query a specified type of network instances that are attached to a CEN instance by setting the `CenId` and `ChildInstanceType` parameters.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeCenAttachedChildInstances	The operation that you want to perform. Set the value to **DescribeCenAttachedChildInstances**.
CenId	String	Yes	cen-j3jzhw1zpau2km****	The ID of the CEN instance.
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.
PageSize	Integer	No	10	The number of entries to return per page. Default value: **10**. Valid values: **1** to **50**.
ChildInstanceType	String	No	VPC	The type of the network instance. Valid values: • **VPC**: virtual private cloud (VPC) • **VBR**: virtual border router (VBR) • **CCN**: Cloud Connect Network (CCN) instance
ChildInstanceRegionId	String	No	cn-zhangjiakou	The region ID of the network instance. You can call the DescribeRegions operation to query the most recent region list.

Response parameters

Parameter	Type	Example	Description
ChildInstances	Array of ChildInstance		The information about the network instances.
ChildInstance			
CenId	String	cen-j3jzhw1zpau2km****	The ID of the CEN instance.
ChildInstanceAttachTime	String	2021-08-10T06:27Z	The time when the network instance was attached to the CEN instance. The time follows the ISO 8601 standard in the yyyy-MM-ddThh:mmZ format. The time is displayed in UTC.
ChildInstanceId	String	vpc-8vb1lu55yt9rlwgxl****	The ID of the network instance.
ChildInstanceOwnerId	Long	1688000000000000	The ID of the Alibaba Cloud account to which the network instance belongs.

Parameter	Type	Example	Description
ChildInstanceRegionId	String	cn-zhangjiakou	The region ID of the network instance.
ChildInstanceType	String	VPC	The type of the network instance. Valid values: • **VPC**: VPC • **VBR**: VBR • **CCN**: CCN instance
Status	String	Attached	The status of the network instance. Valid values: • **Attaching**: The network instance is being attached to the CEN instance. • **Attached**: The network instance is attached to the CEN instance. • **Detaching**: The network instance is being detached from the CEN instance.
PageNumber	Integer	1	The number of the returned page.
PageSize	Integer	10	The number of entries returned per page.
RequestId	String	B2063B16-852B-5B66-B73D-4ED4D1A5E5C2	The ID of the request.
TotalCount	Integer	1	The total number of entries returned.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeCenAttachedChildInstances
&CenId=cen-j3jzhw1zpau2km****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeCenAttachedChildInstancesResponse>
  <TotalCount>1</TotalCount>
  <PageSize>10</PageSize>
  <RequestId>B2063B16-852B-5B66-B73D-4ED4D1A5E5C2</RequestId>
  <PageNumber>1</PageNumber>
  <ChildInstances>
        <ChildInstance>
              <Status>Attached</Status>
              <ChildInstanceType>VPC</ChildInstanceType>
              <CenId>cen-j3jzhw1zpau2kmscxd</CenId>
              <ChildInstanceAttachTime>2021-08-10T06:27Z</ChildInstanceAttachTime>
              <ChildInstanceOwnerId>1688401595963306</ChildInstanceOwnerId>
              <ChildInstanceId>vpc-8vb1lu55yt9rlwgxlu83b</ChildInstanceId>
              <ChildInstanceRegionId>cn-zhangjiakou</ChildInstanceRegionId>
        </ChildInstance>
  </ChildInstances>
</DescribeCenAttachedChildInstancesResponse>
```

`JSON` format

```
{
    "TotalCount": 1,
    "PageSize": 10,
    "RequestId": "B2063B16-852B-5B66-B73D-4ED4D1A5E5C2",
    "PageNumber": 1,
    "ChildInstances": {
        "ChildInstance": [
            {
                "Status": "Attached",
                "ChildInstanceType": "VPC",
                "CenId": "cen-j3jzhw1zpau2km****",
                "ChildInstanceAttachTime": "2021-08-10T06:27Z",
                "ChildInstanceOwnerId": 1688000000000000,
                "ChildInstanceId": "vpc-8vb1lu55yt9rlwgxl****",
                "ChildInstanceRegionId": "cn-zhangjiakou"
            }
        ]
    }
}
```


Error codes

For a list of error codes, visit the API Error Center.

9.7. DescribeChildInstanceRegions

Queries the regions where network instances can be attached to a Cloud Enterprise Network (CEN) instance.

Description

The regions that support CEN vary based on the network instance type. To query the regions where you can attach a specified type of network instances to CEN, set the `ProductType` parameter. If you do not set the `ProductType` parameter, the system queries all regions where you can attach network instances to CEN, regardless of the network instance type.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeChildInstanceRegions	The operation that you want to perform. Set the value to **DescribeChildInstanceRegions**.
ProductType	String	No	VPC	The network instance type. Valid values: • **VPC**: virtual private cloud (VPC) • **VBR**: virtual border router (VBR) • **CCN**: Cloud Connect Network (CCN) instance

Response parameters

Parameter	Type	Example	Description
Regions	Array of Region		The list of regions.
Region			
LocalName	String	China (Hangzhou)	The name of the region.
RegionId	String	cn-hangzhou	The ID of the region.
RequestId	String	D5CEED59-36AA-47CC-9D81-16F71C46BD80	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeChildInstanceRegions
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeChildInstanceRegionsResponse>
  <RequestId>D5CEED59-36AA-47CC-9D81-16F71C46BD80</RequestId>
  <Regions>
        <Region>
              <RegionId>cn-hangzhou</RegionId>
              <LocalName>China (Hangzhou)</LocalName>
        </Region>
  </Regions>
</DescribeChildInstanceRegionsResponse>
```

`JSON` format

```
{
    "RequestId": "D5CEED59-36AA-47CC-9D81-16F71C46BD80",
    "Regions": {
        "Region": [
            {
                "RegionId": "cn-hangzhou",
                "LocalName": "China (Hangzhou)"
            }
        ]
    }
}
```

Error codes

For a list of error codes, visit the API Error Center.

9.8. DescribeGrantRulesToCen

Queries the network instances of other Alibaba Cloud accounts that have granted permissions to a CEN instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeGrantRulesToCen	The operation that you want to perform. Set the value to **DescribeGrantRulesToCen**.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the network instance is deployed. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
CenId	String	Yes	cen-nye53d7p3hzyu4****	The ID of the CEN instance.

Parameter	Type	Required	Example	Description
ProductType	String	Yes	VPC	The type of the network instance. Valid values: • **VPC**: virtual private cloud (VPC) • **VBR**: virtual border router (VBR) • **CCN**: Cloud Connect Network (CCN) instance

Response parameters

Parameter	Type	Example	Description
RequestId	String	4906B209-8613-5C19-9CC9-B7A3FFDA731C	The ID of the request.
GrantRules	Array of GrantRule		The permissions that are granted.
GrantRule			
ChildInstanceType	String	VPC	The type of the network instance. Valid values: • **VPC**: VPC • **VBR**: VBR • **CCN**: CCN instance
ChildInstanceRegionId	String	cn-hangzhou	The ID of the region where the network instance is deployed.
ChildInstanceOwnerId	Long	253460731706911258	The ID of the Alibaba Cloud account to which the network instance belongs.
ChildInstanceId	String	vpc-bp1rgeww9mdstuuar****	The ID of the network instance.
CenId	String	cen-nye53d7p3hzyu4****	The ID of the CEN instance.
OrderType	String	PayByCenOwner	The entity that pays the fees of the network instance. Valid values: • **PayByCenOwner**: the Alibaba Cloud account that owns the CEN instance. • **PayByResourceOwner**: the Alibaba Cloud account that owns the network instance.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeGrantRulesToCen
&RegionId=cn-hangzhou
&CenId=cen-nye53d7p3hzyu4****
&ProductType=VPC
&Common request parameters
```

Sample responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DescribeGrantRulesToCenResponse>
    <RequestId>4906B209-8613-5C19-9CC9-B7A3FFDA731C</RequestId>
    <GrantRules>
        <GrantRule>
            <ChildInstanceType>VPC</ChildInstanceType>
            <OrderType>PayByCenOwner</OrderType>
            <CenId>cen-nye53d7p3hzyu4****</CenId>
            <ChildInstanceOwnerId>253460731706911260</ChildInstanceOwnerId>
            <ChildInstanceId>vpc-bp1rgeww9mdstuuar****</ChildInstanceId>
            <ChildInstanceRegionId>cn-hangzhou</ChildInstanceRegionId>
        </GrantRule>
        <GrantRule>
            <ChildInstanceType>VPC</ChildInstanceType>
            <OrderType>PayByResourceOwner</OrderType>
            <CenId>cen-nye53d7p3hzyu4****</CenId>
            <ChildInstanceOwnerId>253460731706911260</ChildInstanceOwnerId>
            <ChildInstanceId>vpc-bp10zpjycfz9ttm6i****</ChildInstanceId>
            <ChildInstanceRegionId>cn-hangzhou</ChildInstanceRegionId>
        </GrantRule>
    </GrantRules>
</DescribeGrantRulesToCenResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "4906B209-8613-5C19-9CC9-B7A3FFDA731C",
  "GrantRules" : {
    "GrantRule" : [ {
      "ChildInstanceType" : "VPC",
      "OrderType" : "PayByCenOwner",
      "CenId" : "cen-nye53d7p3hzyu4****",
      "ChildInstanceOwnerId" : 253460731706911258,
      "ChildInstanceId" : "vpc-bp1rgeww9mdstuuar****",
      "ChildInstanceRegionId" : "cn-hangzhou"
    }, {
      "ChildInstanceType" : "VPC",
      "OrderType" : "PayByResourceOwner",
      "CenId" : "cen-nye53d7p3hzyu4****",
      "ChildInstanceOwnerId" : 253460731706911258,
      "ChildInstanceId" : "vpc-bp10zpjycfz9ttm6i****",
      "ChildInstanceRegionId" : "cn-hangzhou"
    } ]
  }
}
```

Error codes

For a list of error codes, visit the API Error Center.

9.9. ListGrantVSwitchesToCen

Queries the Switches in a virtual private cloud (VPC) that belongs to another Alibaba Cloud account and is attached to a Cloud Enterprise Network (CEN) instance.

Usage notes

Before you call the `ListGrantVSwitchesToCen` operation, make sure that the following requirements are met:

- The permissions on the VPC are granted to the CEN instance. For more information, see GrantInstanceToCen.
- The VPC is attached to the CEN instance.
  - For more information about how to connect an Enterprise Edition transit router to a VPC, see CreateTransitRouterVpcAttachment.
  - For more information about how to connect a Basic Edition transit router to a VPC, see AttachCenChildInstance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ListGrantVSwitchesToCen	The operation that you want to perform. Set the value to **ListGrantVSwitchesToCen**.
RegionId	String	Yes	cn-hangzhou	The region ID of the VPC. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
CenId	String	Yes	cen-44m0p68spvlrqq****	The ID of the CEN instance.
VpcId	String	Yes	vpc-bp12ge2tq5gzdc915****	The ID of the VPC.
PageNumber	Integer	No	1	The page number of the page to return. Default value: **1**.
PageSize	Integer	No	10	The number of entries to return on each page. Valid values: **1** to **50**. Default value: **10**.
ZoneId	String	No	cn-hangzhou-h	The ID of the zone. • If you specify a zone ID, the system queries the information about the vSwitches in the specified zone. • If you do not specify a zone ID, the system queries the information about the vSwitches in all zones. You can call the DescribeZones operation to query the most recent zone list.

Response parameters

Parameter	Type	Example	Description
PageSize	Integer	10	The number of entries returned per page.
RequestId	String	A9288C78-881A-5D30-A8A9-68E05EE0A086	The ID of the request.
PageNumber	Integer	1	The page number of the returned page.
TotalCount	Integer	2	The total number of entries returned.
VSwitches	Array of VSwitch		The list of vSwitches.
VpcId	String	vpc-bp12ge2tq5gzdc915****	The ID of the VPC to which the vSwitch belongs.
ZoneId	String	cn-hangzhou-h	The ID of the zone to which the vSwitch belongs.
VSwitchId	String	vsw-bp1194lh263wx1gsk****	The ID of the vSwitch.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ListGrantVSwitchesToCen
&RegionId=cn-hangzhou
&CenId=cen-44m0p68spv1rqq****
&VpcId=vpc-bp12ge2tq5gzdc915****
&PageNumber=1
&PageSize=10
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<ListGrantVSwitchesToCenResponse>
    <TotalCount>2</TotalCount>
    <PageSize>10</PageSize>
    <RequestId>A9288C78-881A-5D30-A8A9-68E05EE0A086</RequestId>
    <PageNumber>1</PageNumber>
    <VSwitches>
        <VpcId>vpc-bp12ge2tq5gzdc915****</VpcId>
        <ZoneId>cn-hangzhou-h</ZoneId>
        <VSwitchId>vsw-bp1194lh263wx1gsk****</VSwitchId>
    </VSwitches>
    <VSwitches>
        <VpcId>vpc-bp12ge2tq5gzdc915****</VpcId>
        <ZoneId>cn-hangzhou-i</ZoneId>
        <VSwitchId>vsw-bp1607g2jc48qanlk****</VSwitchId>
    </VSwitches>
</ListGrantVSwitchesToCenResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "TotalCount" : 2,
  "PageSize" : 10,
  "RequestId" : "A9288C78-881A-5D30-A8A9-68E05EE0A086",
  "PageNumber" : 1,
  "VSwitches" : [ {
    "VpcId" : "vpc-bp12ge2tq5gzdc915****",
    "ZoneId" : "cn-hangzhou-h",
    "VSwitchId" : "vsw-bp1194lh263wx1gsk****"
  }, {
    "VpcId" : "vpc-bp12ge2tq5gzdc915****",
    "ZoneId" : "cn-hangzhou-i",
    "VSwitchId" : "vsw-bp1607g2jc48qanlk****"
  } ]
}
```

Error codes

For a list of error codes, visit the Error Center.

10.Bandwidth plans

10.1. CreateCenBandwidthPackage

Creates a bandwidth plan.

Usage notes

You must specify the areas to be connected when you create a bandwidth plan. An area is a collection of Alibaba Cloud regions. When you select areas for a bandwidth plan, make sure that the areas contain the regions that you want to connect. For more information about the supported areas and regions, see Purchase a bandwidth plan.

For more information about the billing rules, see Billing.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateCenBandwidthPackage	The operation that you want to perform. Set the value to **CreateCenBandwidthPackage**.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must make sure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
Name	String	No	nametest	The name of the bandwidth plan. The name must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The name must start with a letter and cannot start with `http://` or `https://`.
Description	String	No	namedesc	The description of the bandwidth plan.
Bandwidth	Integer	Yes	2	The maximum bandwidth value of the bandwidth plan. Unit: Mbit/s. Valid values: **2** to **10000**.
GeographicRegionAId	String	Yes	China	The area where the network instance is deployed. Valid values: • **China**: Chinese mainland • **North-America**: North America • **Asia-Pacific**: Asia Pacific • **Europe**: Europe • **Australia**: Australia
GeographicRegionBId	String	Yes	China	The area where the other network instance is deployed. Valid values: Valid values: • **China**: Chinese mainland • **North-America**: North America • **Asia-Pacific**: Asia Pacific • **Europe**: Europe • **Australia**: Australia

Parameter	Type	Required	Example	Description
BandwidthPackageChargeType	String	No	PREPAY	The billing method of the bandwidth plan. Valid values: **PREPAY**, which indicates that the billing method is pay-as-you-go.
Period	Integer	No	1	The subscription duration of the bandwidth plan. Default value: 1. • If **PricingCycle** is set to **Month**, set **Period** to a value from **1** to **3** or **6**. • If **PricingCycle** is set to **Year**, set **Period** to a value from **1** to **3**. **Note** This parameter is required when **BandwidthPackageChargeType** is set to **PREPAY**.
PricingCycle	String	No	Month	The billing cycle of the bandwidth plan. Valid values: • **Month** (default): billed on a monthly basis. • **Year**: billed on an yearly basis.
AutoPay	Boolean	No	false	Specifies whether to automatically complete the payment of the bandwidth plan. Valid values: • **true**: yes. • **false** (default): no If you set the parameter to false, go to Billing Management to complete the payment after you call this operation. The instance is created only after you complete the payment.

Response parameters

Parameter	Type	Example	Description
CenBandwidthPackageId	String	cenbwp-4c2zaavbvh5fx****	The ID of the bandwidth plan.
CenBandwidthPackageOrderId	String	20156420004****	The ID of the order for the bandwidth plan.
RequestId	String	E4B345CD-2CBA-4881-AF6D-E5D9BAE1CA7B	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateCenBandwidthPackage
&ClientToken=02fb3da4-130e-11e9-8e44-001****
&Name=nametest
&Description=namedesc
&Bandwidth=2
&GeographicRegionAId=China
&GeographicRegionBId=China
&BandwidthPackageChargeType=PREPAY
&Period=1
&PricingCycle=Month
&AutoPay=false
&AutoRenew=false
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<CreateCenBandwidthPackageResponse>
    <RequestId>E4B345CD-2CBA-4881-AF6D-E5D9BAE1CA7B</RequestId>
    <CenBandwidthPackageOrderId>20156420004****</CenBandwidthPackageOrderId>
    <CenBandwidthPackageId> cenbwp-4c2zaavbvh5fx****</CenBandwidthPackageId>
</CreateCenBandwidthPackageResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "E4B345CD-2CBA-4881-AF6D-E5D9BAE1CA7B",
  "CenBandwidthPackageOrderId" : "20156420004****",
  "CenBandwidthPackageId" : "cenbwp-4c2zaavbvh5fx****"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	UnSupported.ChargeType	The charge type is not supported.	The error message returned because the specified billing method is not supported.

For a list of error codes, visit the API Error Center.

10.2. ModifyCenBandwidthPackageAttribute

Modifies the name and description of a bandwidth plan.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifyCenBandwidthPackageAttribute	The operation that you want to perform. Set the value to **ModifyCenBandwidthPackageAttribute**.
CenBandwidthPackageId	String	Yes	cenbwp-4c2zaavbvh5fx****	The ID of the bandwidth plan
Name	String	No	test	The new name of the bandwidth plan. The name must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The name must start with a letter or Chinese character but cannot start with `http://` or `https://`.
Description	String	No	Bandwidth plan	The new description of the bandwidth plan. The description must be 2 to 256 characters in length. It must start with a letter or Chinese character but cannot start with `http://` or `https://`.

Response parameters

Parameter	Type	Example	Description

Parameter	Type	Example	Description
RequestId	String	13526224-5780-4426-8ADF-BC8B08700F23	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ModifyCenBandwidthPackageAttribute
&CenBandwidthPackageId=cenbwp-4c2zaavbvh5fx****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifyCenBandwidthPackageAttributeResponse>
       <RequestId>13526224-5780-4426-8ADF-BC8B08700F23</RequestId>
</ModifyCenBandwidthPackageAttributeResponse>
```

`JSON` format

```
{
    "RequestId":"13526224-5780-4426-8ADF-BC8B08700F23"
}
```

Error codes

For a list of error codes, visit the API Error Center.

10.3. ModifyCenBandwidthPackageSpec

Modifies the bandwidth limit of a bandwidth plan.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifyCenBandwidthPackageSpec	The operation that you want to perform. Set the value to **ModifyCenBandwidthPackageSpec**.
Bandwidth	Integer	Yes	2	The new bandwidth limit of the bandwidth plan. Unit: Mbit/s. Valid values: **2** to **10000**.
CenBandwidthPackageId	String	Yes	cenbwp-4c2zaavbvh5x****	The ID of the bandwidth plan.

Response parameters

Parameter	Type	Example	Description
RequestId	String	0C2EE7A8-74D4-4081-8236-CEBDE3BBCF50	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ModifyCenBandwidthPackageSpec
&Bandwidth=2
&CenBandwidthPackageId=cenbwp-4c2zaavbvh5x****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifyCenBandwidthPackageSpecResponse>
       <RequestId>0C2EE7A8-74D4-4081-8236-CEBDE3BBCF50</RequestId>
</ModifyCenBandwidthPackageSpecResponse>
```

`JSON` format

```
{
  "RequestId": "0C2EE7A8-74D4-4081-8236-CEBDE3BBCF50"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidStatus.Resource	The status of the specified resource is invalid. The resource cannot be renewed.	The error message returned because the status of the specified resource is invalid. The resource cannot be renewed.
400	OperationFailed.InsufficientBalance	Your account does not have enough balance.	The error message returned because your Alibaba Cloud account has overdue payments.
400	OperationFailed.OperationIsProcessing	The operation failed because another operation is being processed.	The error message returned because another operation is being performed.
400	OperationFailed.OrderIsProcessing	The operation failed because the order is being processed.	The error message returned because the order is being processed.

For a list of error codes, visit the API Error Center.

10.4. DescribeCenGeographicSpanRemainingBandwidth

Queries the unused bandwidth of a bandwidth plan.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeCenGeographicSpanRemainingBandwidth	The operation that you want to perform. Set the value to **DescribeCenGeographicSpanRemainingBandwidth**.
CenId	String	Yes	cen-nh98vzx8gfhlwn****	The ID of the Cloud Enterprise Network (CEN) instance to which the bandwidth plan is associated.

Parameter	Type	Required	Example	Description
GeographicRegionAId	String	Yes	China	The ID of one of the connected areas of the bandwidth plan. Valid values: • **China**: mainland China • **North-America**: North America • **Asia-Pacific**: Asia Pacific • **Europe**: Europe • **Australia**: Australia
GeographicRegionBId	String	Yes	North-America	The ID of the other connected area of the bandwidth plan. Valid values: • **China**: mainland China • **North-America**: North America • **Asia-Pacific**: Asia Pacific • **Europe**: Europe • **Australia**: Australia
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.
PageSize	Integer	No	10	The number of entries to return per page. Default value: **10**. Valid values: **1** to **50**.

Response parameters

Parameter	Type	Example	Description
RemainingBandwidth	Long	2	The unused bandwidth of the bandwidth plan. Unit: Mbit/s.
RequestId	String	E4B345CD-2CBA-4881-AF6D-E5D9BAE1CA7B	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeCenGeographicSpanRemainingBandwidth
&CenId=cen-nh98vzx8gfhlwn****
&GeographicRegionAId=China
&GeographicRegionBId=North-America
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeCenGeographicSpanRemainingBandwidthResponse>
      <RequestId>E4B345CD-2CBA-4881-AF6D-E5D9BAE1CA7B</RequestId>
      <RemainingBandwidth>2</RemainingBandwidth>
</DescribeCenGeographicSpanRemainingBandwidthResponse>
```

`JSON` format

```
{
    "RequestId":"E4B345CD-2CBA-4881-AF6D-E5D9BAE1CA7B",
    "RemainingBandwidth":"2"
}
```

Error codes

For a list of error codes, visit the API Error Center.

10.5. DescribeCenBandwidthPackages

Queries details about Cloud Enterprise Network (CEN) bandwidth plans within the current Alibaba Cloud account.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
IncludeReservationData	Boolean	No	true	Specifies whether to include renewal data. Valid values: • **true**: yes • **false**: no
Action	String	Yes	DescribeCenBandwidthPackages	The operation that you want to perform. Set the value to **DescribeCenBandwidthPackages**.
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.
PageSize	Integer	No	2	The number of entries to return on each page. Maximum value: **50**. Default value: **10**.
IsOrKey	Boolean	No	false	The logical operator between the filter conditions. Valid values: • **false** (default): **AND** Bandwidth plans that meet all filter conditions are returned. • **true**: **OR** Bandwidth plans that meet one of the filter conditions are returned.

Filter.N.Key	String	No	CenId	The filter condition.
				You can use filter conditions to filter the bandwidth plans that you want to query. The following filter conditions are supported:
				• **CenId**: CEN instance ID
				• **Status**: bandwidth plan status. Valid values:
				  ◦ **Idle**: not associated with a CEN instance.
				  ◦ **InUse**: associated with a CEN instance.
				• **CenBandwidthPackageId**: bandwidth plan ID
				• **Name**: bandwidth plan name
				You can specify one or more filter conditions. The maximum value of **N** is **5**.

Filter.N.Value.N	String	No	cen-xxjsjfkffkfkfjkf****	Specify a filter value based on the **Key** parameter. You can specify multiple values for a **filter key**. The logical relation among multiple filter values is **OR**. If a bandwidth package matches one of the values that you specify, the bandwidth package matches the filter condition.

Response parameters

Parameter	Type	Example	Description
PageSize	Integer	2	The number of entries returned per page.

Parameter	Type	Example	Description
RequestId	String	9D7E2400-2755-4AF5-9B73-12565E4F73A0	The ID of the request.
PageNumber	Integer	1	The page number of the returned page.
TotalCount	Integer	2	The number of entries returned.
CenBandwidthPackages	Array of CenBandwidthPackage		The details about the bandwidth plan.
CenBandwidthPackage			
ReservationActiveTime	String	2021-08-30T16:00Z	The expiration time of the temporary upgrade.
Status	String	InUse	Indicates whether the bandwidth plan is associated with a CEN instance. • **Idle**: no • **InUse**: yes
CreationTime	String	2021-02-01T11:14Z	The time when the bandwidth plan was created. The time is displayed in the ISO8601 standard in the YYYY-MM-DDThh:mmZ format.
ReservationOrderType	String	UPGRADE	The renewal method. • **TEMP_UPGRADE**: temporary upgrade • **UPGRADE**: upgrade
BandwidthPackageChargeType	String	PREPAY	The billing method of the bandwidth plan.
CenBandwidthPackageId	String	cenbwp-4c2zaavbvh5x****	The ID of the bandwidth plan.
ReservationInternetChargeType	String	PREPAY	The new billing method.
GeographicRegionAId	String	china	The ID of the area that you want to query. Valid values: • **china**: Chinese mainland. • **asia-pacific**: Asia Pacific • **europe**: Europe • **australia**: Australia • **north-america**: North America
Bandwidth	Long	2	The maximum bandwidth of the bandwidth plan.
Description	String	cen	The description of the bandwidth plan.
ExpiredTime	String	2021-09-08T16:00Z	The timeout period of the bandwidth plan.
ReservationBandwidth	String	10	The bandwidth value to which the bandwidth plan is rolled back when the temporary upgrade ends.
GeographicSpanId	String	north-america_china	The ID of the connected area.

Parameter	Type	Example	Description
GeographicRegionBId	String	north-america	The ID of the other connected area of the bandwidth plan. Valid values: • **china**: Chinese mainland. • **asia-pacific**: Asia Pacific • **europe**: Europe • **australia**: Australia • **north-america**: North America
IsCrossBorder	Boolean	false	Indicates whether the bandwidth plan is a cross-border bandwidth plan. • **false**: no • **true**: yes
BusinessStatus	String	Normal	The status of the bandwidth plan. Valid values: • **Normal**: normal • **FinancialLocked**: locked due to overdue payments • **SecurityLocked**: locked due to security reasons
Name	String	test	The name of the bandwidth plan.
HasReservationData	String	false	Indicates whether renewal data is included. • **true**: yes • **false**: no **Note** This parameter returns **true** only when the **IncludeReservationData** parameter is set to **true** and an order has not taken effect.
OrginInterRegionBandwidthLimits	Array of OrginInterRegionBandwidthLimit		The details about the connected regions.
OrginInterRegionBandwidthLimit			
BandwidthLimit	String	1	The maximum bandwidth value for the inter-region connection.
OppositeRegionId	String	us-west-1	The ID of the peer region.
GeographicSpanId	String	north-america_china	The connected regions.
LocalRegionId	String	cn-hangzhou	The ID of the source region.
CenIds	Array of String	cen-xxjsjfkffkfkfjkf****	A list of CEN instances that are associated with the bandwidth plan.

Examples

Sample requests

```
http(s)://[Endpoint]/?IncludeReservationData=true
&Action=DescribeCenBandwidthPackages
&PageNumber=1
&PageSize=2
&IsOrKey=false
&Filter=[{"Key":"CenId","Value":["cen-xxjsjfkffkfkfjkf****"]}]
&Common request parameters
```

Sample responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DescribeCenBandwidthPackagesResponse>
    <PageSize>2</PageSize>
    <RequestId>9D7E2400-2755-4AF5-9B73-12565E4F73A0</RequestId>
    <PageNumber>1</PageNumber>
    <TotalCount>2</TotalCount>
    <CenBandwidthPackages>
        <ReservationActiveTime>2021-08-30T16:00Z</ReservationActiveTime>
        <Status>InUse</Status>
        <CreationTime>2021-02-01T11:14Z</CreationTime>
        <ReservationOrderType>UPGRADE</ReservationOrderType>
        <BandwidthPackageChargeType>PREPAY</BandwidthPackageChargeType>
        <CenBandwidthPackageId>cenbwp-4c2zaavbvh5x****</CenBandwidthPackageId>
        <ReservationInternetChargeType>PREPAY</ReservationInternetChargeType>
        <GeographicRegionAId>china</GeographicRegionAId>
        <Bandwidth>2</Bandwidth>
        <Description>cen</Description>
        <ExpiredTime>2021-09-08T16:00Z</ExpiredTime>
        <ReservationBandwidth>10</ReservationBandwidth>
        <GeographicSpanId>north-america_china</GeographicSpanId>
        <GeographicRegionBId>north-america</GeographicRegionBId>
        <IsCrossBorder>false</IsCrossBorder>
        <BusinessStatus>Normal</BusinessStatus>
        <Name>test</Name>
        <HasReservationData>false</HasReservationData>
        <OrginInterRegionBandwidthLimits>
            <BandwidthLimit>1</BandwidthLimit>
            <OppositeRegionId>us-west-1</OppositeRegionId>
            <GeographicSpanId>north-america_china</GeographicSpanId>
            <LocalRegionId>cn-hangzhou</LocalRegionId>
        </OrginInterRegionBandwidthLimits>
        <CenIds>cen-xxjsjfkffkfkfjkf****</CenIds>
    </CenBandwidthPackages>
</DescribeCenBandwidthPackagesResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "PageSize" : 2,
  "RequestId" : "9D7E2400-2755-4AF5-9B73-12565E4F73A0",
  "PageNumber" : 1,
  "TotalCount" : 2,
  "CenBandwidthPackages" : [ {
    "ReservationActiveTime" : "2021-08-30T16:00Z",
    "Status" : "InUse",
    "CreationTime" : "2021-02-01T11:14Z",
    "ReservationOrderType" : "UPGRADE",
    "BandwidthPackageChargeType" : "PREPAY",
    "CenBandwidthPackageId" : "cenbwp-4c2zaavbvh5x****",
    "ReservationInternetChargeType" : "PREPAY",
    "GeographicRegionAId" : "china",
    "Bandwidth" : 2,
    "Description" : "cen",
    "ExpiredTime" : "2021-09-08T16:00Z",
    "ReservationBandwidth" : "10",
    "GeographicSpanId" : "north-america_china",
    "GeographicRegionBId" : "north-america",
    "IsCrossBorder" : false,
    "BusinessStatus" : "Normal",
    "Name" : "test",
    "HasReservationData" : "false",
    "OrginInterRegionBandwidthLimits" : [ {
      "BandwidthLimit" : "1",
      "OppositeRegionId" : "us-west-1",
      "GeographicSpanId" : "north-america_china",
      "LocalRegionId" : "cn-hangzhou"
    } ],
    "CenIds" : [ "cen-xxjsjfkffkfkfjkf****" ]
  } ]
}
```

Error codes

For a list of error codes, visit the API Error Center.

10.6. DescribeCenGeographicSpans

Queries the information about the area combinations supported by Cloud Enterprise Network (CEN).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeCenGeographicSpans	The operation that you want to perform. Set the value to **DescribeCenGeographicSpans**.
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.
PageSize	Integer	No	10	The number of entries to return per page. Default value: **10**. Valid values: **1** to **50**.

Parameter	Type	Required	Example	Description
GeographicSpanId	String	No	china_asia-pacific	The ID of the area combination. **Note** If you do not set this parameter, the system queries the information about all area combinations supported by CEN.

Response parameters

Parameter	Type	Example	Description
GeographicSpanModels	Array of GeographicSpanModel		The information about area combinations.
GeographicSpanModel			
GeographicSpanId	String	china_asia-pacific	The ID of the area combination.
LocalGeoRegionId	String	asia-pacific	The ID of the local area.
OppositeGeoRegionId	String	china	The ID of the peer area.
PageNumber	Integer	1	The page number of the returned page.
PageSize	Integer	10	The number of entries returned per page.
RequestId	String	09780287-BC24-4164-8334-773432E32696	The ID of the request.
TotalCount	Integer	1	The total number of entries returned.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeCenGeographicSpans
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeCenGeographicSpansResponse>
      <PageNumber>1</PageNumber>
      <TotalCount>1</TotalCount>
      <PageSize>10</PageSize>
      <RequestId>09780287-BC24-4164-8334-773432E32696</RequestId>
      <GeographicSpanModels>
            <GeographicSpanModel>
                  <OppositeGeoRegionId>china</OppositeGeoRegionId>
                  <LocalGeoRegionId>asia-pacific</LocalGeoRegionId>
                  <GeographicSpanId>china_asia-pacific</GeographicSpanId>
            </GeographicSpanModel>
      </GeographicSpanModels>
</DescribeCenGeographicSpansResponse>
```

`JSON` format

```
{
"PageNumber": 1,
    "TotalCount": 1,
    "PageSize": 10,
    "RequestId": "09780287-BC24-4164-8334-773432E32696",
    "GeographicSpanModels": {
        "GeographicSpanModel": [
            {
                "OppositeGeoRegionId": "china",
                "LocalGeoRegionId": "asia-pacific",
                "GeographicSpanId": "china_asia-pacific"
            }
        ]
    }
}
```


Error codes

For a list of error codes, visit the API Error Center.

10.7. DescribeGeographicRegionMembership

Queries regions in an area.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeGeographicRegionMembership	The operation that you want to perform. Set the value to **DescribeGeographicRegionMembership**.
GeographicRegionId	String	Yes	china	The ID of the area that you want to query. Valid values: • **china**: mainland China • **asia-pacific**: Asia Pacific • **europe**: Europe • **australia**: Australia • **north-america**: North America
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.
PageSize	Integer	No	10	The number of entries to return per page. Default value: **10**. Valid values: **1** to **50**.

Response parameters

Parameter	Type	Example	Description
PageNumber	Integer	10	The page number of the returned page.
PageSize	Integer	2	The number of entries returned per page.
RegionIds	Array of RegionId		The list of regions.
RegionId			

Parameter	Type	Example	Description
RegionId	String	us-west-1	The ID of the region. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
RequestId	String	DC9EB0C9-60AF-4A09-A36C-608F70130274	The ID of the request.
TotalCount	Integer	2	The total number of entries returned.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeGeographicRegionMembership
&GeographicRegionId=china
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeGeographicRegionMembershipResponse>
     <PageNumber>1</PageNumber>
     <PageSize>10</PageSize>
     <RegionIds>
          <RegionId>
                  <RegionId>us-west-1</RegionId>
             </RegionId>
             <RegionId>
                  <RegionId>us-east-1</RegionId>
             </RegionId>
     </RegionIds>
     <RequestId>DC9EB0C9-60AF-4A09-A36C-608F70130274</RequestId>
     <TotalCount>2</TotalCount>
</DescribeGeographicRegionMembershipResponse>
```

`JSON` format

```
{
   "RegionIds":{
      "RegionId":[
         {
            "RegionId":"us-west-1"
         },
         {
            "RegionId":"us-east-1"
         }
      ]
   },
   "PageNumber":1,
   "TotalCount":2,
   "PageSize":10,
   "RequestId":"DC9EB0C9-60AF-4A09-A36C-608F70130274"
}
```

Error codes

For a list of error codes, visit the API Error Center.

10.8. UnassociateCenBandwidthPackage

Disassociates a bandwidth plan from a Cloud Enterprise Network (CEN) instance.

Prerequisites

No cross-region connections are configured in the bandwidth plan. For more information about how to delete cross-region connections, see SetCenInterRegionBandwidthLimit.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	UnassociateCenBandwidthPackage	The operation that you want to perform. Set the value to **UnassociateCenBandwidthPackage**.
CenBandwidthPackageId	String	Yes	cenbwp-4c2zaavbvh5****	The ID of the bandwidth plan.
CenId	String	Yes	cen-7qthudw0ll6j****	The ID of the Cloud Enterprise Network (CEN) instance.

Response parameters

Parameter	Type	Example	Description
RequestId	String	0C2EE7A8-74D4-4081-8236-CEBDE3BBCF50	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=UnassociateCenBandwidthPackage
&CenBandwidthPackageId=cenbwp-4c2zaavbvh5****
&CenId=cen-7qthudw0ll6j****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<UnassociateCenBandwidthPackageResponse>
      <RequestId>0C2EE7A8-74D4-4081-8236-CEBDE3BBCF50</RequestId>
</UnassociateCenBandwidthPackageResponse>
```

`JSON` format

```
{
  "RequestId": "0C2EE7A8-74D4-4081-8236-CEBDE3BBCF50"
}
```

Error codes

For a list of error codes, visit the API Error Center.

10.9. AssociateCenBandwidthPackage

Associates a bandwidth plan with a Cloud Enterprise Network (CEN) instance.

Limits

You can associate multiple bandwidth plans with a CEN instance, but the combination of areas connected by each bandwidth plan must be unique.

For example, if the CEN instance is associated with a bandwidth plan that connects mainland China to mainland China, you cannot associate the CEN instance with another bandwidth plan that connects mainland China to mainland China. However, you can associate the CEN instance with a bandwidth plan that connects mainland China to North America.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	AssociateCenBandwidthPackage	The operation that you want to perform. Set the value to **AssociateCenBandwidthPackage**.
CenBandwidthPackageId	String	Yes	cenbwp-4c2zaavbvh5fx****	The ID of the bandwidth plan.
CenId	String	Yes	cen-7qthudw0ll6jmc****	The ID of the CEN instance.

Response parameters

Parameter	Type	Example	Description
RequestId	String	0C2EE7A8-74D4-4081-8236-CEBDE3BBCF50	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=AssociateCenBandwidthPackage
&CenBandwidthPackageId=cenbwp-4c2zaavbvh5fx****
&CenId=cen-7qthudw0ll6jmc****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<AssociateCenBandwidthPackageResponse>
  <RequestId>0C2EE7A8-74D4-4081-8236-CEBDE3BBCF50</RequestId>
</AssociateCenBandwidthPackageResponse>
```

`JSON` format

```
{
  "RequestId": "0C2EE7A8-74D4-4081-8236-CEBDE3BBCF50"
}
```

Error codes

For a list of error codes, visit the API Error Center.

10.10. DeleteCenBandwidthPackage

Deletes a bandwidth plan.

Usage

Before you delete a bandwidth plan, make sure that it is disassociated from all Cloud Enterprise Network (CEN) instances. For more information, see UnassociateCenBandwidthPackage.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description

Parameter	Type	Required	Example	Description
Action	String	Yes	DeleteCenBandwidthPackage	The operation that you want to perform. Set the value to **DeleteCenBandwidthPackage**.
CenBandwidthPackageId	String	Yes	cenbwp-4c2zaavbvh5f42****	The ID of the bandwidth plan that you want to delete.

Response parameters

Parameter	Type	Example	Description
RequestId	String	C0245BEF-52AC-44A8-A776-EF96FD26A5CA	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DeleteCenBandwidthPackage
&CenBandwidthPackageId=cenbwp-4c2zaavbvh5f42****
&<Common request parameters>
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DeleteCenBandwidthPackageResponse>
     <RequestId>C0245BEF-52AC-44A8-A776-EF96FD26A5CA</RequestId>
</DeleteCenBandwidthPackageResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "C0245BEF-52AC-44A8-A776-EF96FD26A5CA"
}
```

Error codes

For a list of error codes, visit the API Error Center.

10.11. TempUpgradeCenBandwidthPackageSpec

Temporarily upgrades a subscription bandwidth plan of Cloud Enterprise Network (CEN).

Descriptions

Subscription bandwidth plans support temporary upgrades. This topic describes how to temporarily upgrade a subscription bandwidth plan. You can increase the bandwidth limit of a bandwidth plan within a specified time window. This way, you can manage your bandwidth to handle traffic spikes in a more efficient manner.

The minimum time window for a temporary upgrade is 3 hours. The bandwidth plan is upgraded immediately after you complete the payment. The upgrade process does not interrupt workloads.

> **Note** After the specified time window ends, the bandwidth limit of the subscription bandwidth plan is reset to the original value. If the bandwidth need of your workloads is higher than this value, packets may be discarded due to network traffic throttling. We recommend that you set a proper time window for the temporary upgrade and make sure that the bandwidth limit meets your business need.

Limits

- The temporary upgrade feature is unavailable by default. If you want to use this feature, submit a ticket.

- Expired subscription bandwidth plans and pay-as-you-go bandwidth plans do not support the temporary upgrade feature.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	TempUpgradeCenBandwidthPackageSpec	The operation that you want to perform. Set the value to **TempUpgradeCenBandwidthPackageSpec**.
Bandwidth	Integer	Yes	20	The bandwidth limit after the bandwidth plan is upgraded. Unit: Mbit/s. Valid values: **2** to **10000**.
CenBandwidthPackageId	String	Yes	cenbwp-y08yosedeqlpua****	The ID of the bandwidth plan.
EndTime	String	Yes	2022-07-24T13:00:52Z	The time when the temporary upgrade ends. The time follows the ISO 8601 standard in the yyyy-MM-ddThh:mm:ssZ format. The time is displayed in UTC.

Response parameters

Parameter	Type	Example	Description
RequestId	String	DB0A026C-A8E5-40AB-977E-3A87DD78F694	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=TempUpgradeCenBandwidthPackageSpec
&Bandwidth=20
&CenBandwidthPackageId=cenbwp-y08yosedeqlpua****
&EndTime=2022-07-24T13:00:52Z
&<Common request parameters>
```

Sample success responses

`XML` format

```
<TempUpgradeCenBandwidthPackageSpecResponse>
  <RequestId>DB0A026C-A8E5-40AB-977E-3A87DD78F694</RequestId>
</TempUpgradeCenBandwidthPackageSpecResponse>
```

`JSON` format

```
{
"RequestId": "DB0A026C-A8E5-40AB-977E-3A87DD78F694"
}
```

Error codes

For a list of error codes, visit the API Error Center.

11.Cross-region connections

11.1. CreateTransitRouterPeerAttachment

Creates a cross-region connection on an Enterprise Edition transit router.

Description

By default, 1 Kbit/s of bandwidth is provided for cross-region communication between transit routers. This allows you to test the connectivity of cross-region IPv4 networks. To allow services that are deployed in different regions to communicate with each other, you must create a cross-region connection and allocate bandwidth resources to the connection.

Enterprise Edition transit routers allow you to allocate bandwidth resources to cross-region connections by using the following methods:

- **Allocate bandwidth resources from a bandwidth plan**:

  You must purchase a bandwidth plan, and then allocate bandwidth resources from the bandwidth plan to cross-region connections. For more information, see CreateCenBandwidthPackage.

- **Use pay-by-data-transfer bandwidth resources**:

  You can set a bandwidth limit for a cross-region connection. Then, you are charged for the amount of data transfer of the connection. For more information, see Cross-region data transfer.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateTransitRouterPeerAttachment	The operation that you want to perform. Set the value to **CreateTransitRouterPeerAttachment**.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must make sure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
CenId	String	No	cen-j3jzhw1zpau2km****	The ID of the Cloud Enterprise Network (CEN) instance.
TransitRouterId	String	No	tr-bp1su1ytdxtataupl****	The ID of the local Enterprise Edition transit router.
RegionId	String	No	cn-hangzhou	The ID of the region where the local Enterprise Edition transit router is deployed. You can call the DescribeRegions operation to query the most recent region list.
TransitRouterAttachmentName	String	No	testname	The name of the cross-region connection. The name must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The name must start with a letter.
TransitRouterAttachmentDescription	String	No	testdesc	The description of the cross-region connection. The description must be 2 to 256 characters in length. The description must start with a letter but cannot start with `http://` or `https://`.

Parameter	Type	Required	Example	Description
PeerTransitRouterId	String	Yes	tr-m5eq27g6bndum7e88****	The ID of the peer transit router.
PeerTransitRouterRegionId	String	No	cn-qingdao	The ID of the region where the peer transit router is deployed.
AutoPublishRouteEnabled	Boolean	No	false	Specifies whether to enable the local Enterprise Edition transit router to automatically advertise the routes of the cross-region connection to the peer transit router. Valid values: • **false** (default): no • **true**: yes
Bandwidth	Integer	No	2	The bandwidth value of the cross-region connection. Unit: Mbit/s. • If you set **BandwidthType** to **BandwidthPackage**, this parameter specifies the bandwidth that is available for the cross-region connection. • If you set **BandwidthType** to **DataTransfer**, this parameter specifies the bandwidth limit of the cross-region connection.
CenBandwidthPackageId	String	No	cenbwp-3xrxupouolw5ou****	The ID of the bandwidth plan that is used to allocate bandwidth to the cross-region connection. **Note** If you set **BandwidthType** to **DataTransfer**, you do not need to set this parameter.
DryRun	Boolean	No	false	Specifies whether to check the request but not perform the operation. The system checks the permissions and the status of the specified instances. Valid values: • **false** (default): checks the request. If the request passes the check, the cross-region connection is created. • **true**: checks the request but does not perform the operation. The cross-region connection is not created after the request passes the check. If you use this value, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails the check, an error message is returned. If the request passes the check, the system returns the ID of the request.
BandwidthType	String	No	BandwidthPackage	The method that is used to allocate bandwidth to the cross-region connection. Valid values: **BandwidthPackage**: allocates bandwidth from a bandwidth plan. **DataTransfer**: uses pay-by-data-transfer bandwidth.

Response parameters

Parameter	Type	Example	Description
TransitRouterAttachmentId	String	tr-attach-nwkiqfvw22qesz****	The ID of the cross-region connection.

Parameter	Type	Example	Description
RequestId	String	59422BF5-BAAD-4CFD-9019-9557BD3ACFA3	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateTransitRouterPeerAttachment
&PeerTransitRouterId=tr-m5eq27g6bndum7e88****
&<Common request parameters>
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<CreateTransitRouterPeerAttachmentResponse>
<TransitRouterAttachmentId>tr-attach-nwkiqfvw22qesz****</TransitRouterAttachmentId>
<RequestId>59422BF5-BAAD-4CFD-9019-9557BD3ACFA3</RequestId>
</CreateTransitRouterPeerAttachmentResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "TransitRouterAttachmentId" : "tr-attach-nwkiqfvw22qesz****",
  "RequestId" : "59422BF5-BAAD-4CFD-9019-9557BD3ACFA3"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	OperationUnsupported.TransitRouterRegionId	The specified TransitRouterRegion does not support the operation.	The error message returned because the specified region does not support the operation.
400	NoPermission.AliyunServiceRolePolicyForCEN	You are not authorized to create the service linked role. Role Name: AliyunServiceRolePolicyForCEN. Service Name: cen.aliyuncs.com. Make sure that the user has been granted the ram:CreateServiceLinkedRole permission.	The error message returned because you are not authorized to create the service-linked role AliyunServiceRolePolicyForCEN for the service cen.aliyuncs.com. You must acquire the ram:CreateServiceLinkedRole permission before you can perform the operation.
400	InvalidTransitRouterId.NotFound	TransitRouterId is not found.	The error message returned because the ID of the transit router is invalid.
400	IllegalParam.PeerTransitRouterId	PeerTransitRouterId is illegal.	The error message returned because the ID of the peer transit router is invalid.
400	OperationUnsupported.TransitRouterId	TransitRouterId is unsupported.	The error message returned because the Basic Edition transit routers do not support the operation.
400	MissingParam.Bandwidth	The parameter Bandwidth is mandatory.	The error message returned because no bandwidth value is specified.
400	IllegalParam.Bandwidth	Bandwidth is illegal	The error message returned because the specified bandwidth value is invalid.

For a list of error codes, visit the API Error Center.

11.2. DeleteTransitRouterPeerAttachment

Deletes a cross-region connection for an Enterprise Edition transit router.

Prerequisites

Before you delete a cross-region connection, make sure that the following requirements are met:

- No associated forwarding correlation is established between the cross-region connection and the route tables of the Enterprise Edition transit router. For more information about how to delete an associated forwarding correlation, see DissociateTransitRouterAttachmentFromRouteTable.
- No route learning correlation is established between the cross-region connection and the route tables of the Enterprise Edition transit router. For more information about how to delete a route learning correlation, see DisableTransitRouterRouteTablePropagation.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DeleteTransitRouterPeerAttachment	The operation that you want to perform. Set the value to **DeleteTransitRouterPeerAttachment**.
TransitRouterAttachmentId	String	Yes	tr-attach-gyjhtx9sjsxhm6****	The ID of the cross-region connection.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must ensure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether to only precheck the request. Check items include permissions and the status of the specified instances. Valid values: • **false** (default): sends a normal request. If the request passes the precheck, the cross-region connection is deleted. • **true**: sends a request for precheck only. The cross-region connection is not deleted after the request passes the precheck. If you select this option, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails to pass the precheck, the system returns an error. If the request passes the precheck, the system returns the ID of the request.

Response parameters

Parameter	Type	Example	Description
RequestId	String	A01FEDD7-7D69-4EB3-996D-CF79F6F885CA	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DeleteTransitRouterPeerAttachment
&TransitRouterAttachmentId=tr-attach-gyjhtx9sjsxhm6****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DeleteTransitRouterPeerAttachmentResponse>
  <RequestId>A01FEDD7-7D69-4EB3-996D-CF79F6F885CA</RequestId>
</DeleteTransitRouterPeerAttachmentResponse>
```

`JSON` format

```
{
  "RequestId": "A01FEDD7-7D69-4EB3-996D-CF79F6F885CA"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	OperationFailed.RouteEntryExist	Operation failed because the TransitRouterAttachment exists in RouteTable.	The error message returned because you cannot perform the operation when the specified cross-region connection is specified as the next hop of one or more routes in the route table.
400	OperationFailed.RouteTableAssociationExist	Operation failed because TransitRouterRouteTable exists	The error message returned because you cannot perform the operation when an associated forwarding correlation is configured.

For a list of error codes, visit the API Error Center.

11.3. UpdateTransitRouterPeerAttachmentAttribute

Modifies a cross-region connection on an Enterprise Edition transit router.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	UpdateTransitRouterPeerAttachmentAttribute	The operation that you want to perform. Set the value to **UpdateTransitRouterPeerAttachmentAttribute**.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must make sure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
TransitRouterAttachmentId	String	Yes	tr-attach-ft94dcrbc3e5taun3x	The ID of the cross-region connection.
TransitRouterAttachmentName	String	No	testname	The new name of the cross-region connection. The name must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The name must start with a letter.
TransitRouterAttachmentDescription	String	No	testdesc	The new description of the cross-region connection. The description must be 2 to 256 characters in length. The description must start with a letter but cannot start with `http://` or `https://`.

Parameter	Type	Required	Example	Description
AutoPublishRouteEnabled	Boolean	No	false	Specifies whether to enable the local Enterprise Edition transit router to automatically advertise the routes of the cross-region connection to the peer transit router. Valid values: • **false** (default): no • **true**: yes
DryRun	Boolean	No	false	Specifies whether to check the request but not perform the operation. The system checks the permissions and the status of the specified instances. Valid values: • **false** (default): checks the request. If the request passes the check, the cross-region connection is modified. • **true**: checks the request but does not perform the operation. The cross-region connection is not modified after the request passes the check. If you use this value, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails the check, an error message is returned. If the request passes the check, the system returns the ID of the request.
Bandwidth	Integer	No	2	The bandwidth value of the cross-region connection. Unit: Mbit/s. • If you set **BandwidthType** to **BandwidthPackage**, this parameter specifies the bandwidth that is available for the cross-region connection. • If you set **BandwidthType** to **DataTransfer**, this parameter specifies the bandwidth limit of the cross-region connection.
CenBandwidthPackageId	String	No	cenbwp-3xrxupouolw5ou****	The ID of the bandwidth plan that is used to allocate bandwidth to the cross-region connection. **Note** If you set **BandwidthType** to **DataTransfer**, you do not need to set this parameter.
BandwidthType	String	No	BandwidthPackage	The bandwidth allocation method. Valid values: **BandwidthPackage**: allocates bandwidth from a bandwidth plan. **DataTransfer**: uses pay-by-data-transfer bandwidth.

Response parameters

Parameter	Type	Example	Description
RequestId	String	A01FEDD7-7D69-4EB3-996D-CF79F6F885CA	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=UpdateTransitRouterPeerAttachmentAttribute
&TransitRouterAttachmentId=tr-m5eq27g6bndum7e88****
&<Common request parameters>
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<UpdateTransitRouterPeerAttachmentAttributeResponse>
<RequestId>A01FEDD7-7D69-4EB3-996D-CF79F6F885CA</RequestId>
</UpdateTransitRouterPeerAttachmentAttributeResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "A01FEDD7-7D69-4EB3-996D-CF79F6F885CA"
}
```

Error codes

HttpCode	Error codes	Error message	Description
400	InvalidTransitRouterAttachmentId.NotFound	TransitRouterAttachmentId is not found.	The error message returned because the ID of the network instance is invalid.

For a list of error codes, visit the API Error Center.

11.4. ListTransitRouterPeerAttachments

Queries the cross-region connections on an Enterprise Edition transit router.

Description

You can use the following methods to query the cross-region connections on an Enterprise Edition transit router:

- Query all cross-region connections on an Enterprise Edition transit router by specifying the ID of the Enterprise Edition transit router.
- Query all cross-region connections on an Enterprise Edition transit router by specifying the ID of the Cloud Enterprise Network (CEN) instance and the ID of the region where the transit router is deployed.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ListTransitRouterPeerAttachments	The operation that you want to perform. Set the value to **ListTransitRouterPeerAttachments**.
CenId	String	No	cen-j3jzhw1zpau2km****	The ID of the CEN instance.
RegionId	String	No	cn-hangzhou	The ID of the region where the Enterprise Edition transit router is deployed. You can call the DescribeRegions operation to query the most recent region list.
TransitRouterAttachmentId	String	No	tr-attach-5u4qbayfv2io5v****	The ID of the cross-region connection.

Parameter	Type	Required	Example	Description
TransitRouterId	String	No	tr-bp1su1ytdxtataupl****	The ID of the Enterprise Edition transit router.
MaxResults	Integer	No	20	The number of entries to return per page. The default value is **20**. The maximum value is **100**.
NextToken	String	No	1	The token that is used for the next query. Valid values: • If this is your first query or no next query is to be sent, ignore this parameter. • If a next query is to be sent, set the value to the value of **NextToken** that is returned from the last call.

Response parameters

Parameter	Type	Example	Description
NextToken	String	dd20****	The token that is used for the next query. Valid values: • If the returned value of **NextToken** is empty, it indicates that no next query is to be sent. • If the returned value of **NextToken** is not empty, the value indicates the token that is used for the next query.
RequestId	String	AA97AFA3-8E48-4BD7-9F3E-A9F6176018A0	The ID of the request.
TotalCount	Integer	1	The number of entries returned.
MaxResults	Integer	20	The number of entries returned per page.
TransitRouterAttachments	Array of TransitRouterAttachment		The list of cross-region connections.
CreationTime	String	2021-06-16T02:50Z	The time when the cross-region connection was created. The time follows the ISO8601 standard in the `YYYY-MM-ddTHH:mmZ` format. The time is displayed in UTC.
Status	String	Attached	The status of the cross-region connection. Valid values: • **Attached**: The local transit router is connected to the peer transit router. • **Attaching**: The local transit router is connecting to the peer transit router. • **Detaching**: The local transit router is disconnecting from the peer transit router. • **Detached**: The local transit router is disconnected from the peer transit router.
TransitRouterAttachmentId	String	tr-attach-5u4qbayfv2io5v****	The ID of the cross-region connection.
BandwidthType	String	BandwidthPackage	The bandwidth allocation method. Valid values: **BandwidthPackage**: allocates bandwidth from a bandwidth plan. **DataTransfer**: uses pay-by-data-transfer bandwidth.

Parameter	Type	Example	Description
CenBandwidthPackageId	String	cenbwp-3xrxupouolw5ou****	The ID of the bandwidth plan that is used to allocate bandwidth to the cross-region connection.
TransitRouterAttachmentDescription	String	testdesc	The description of the cross-region connection.
RegionId	String	cn-hangzhou	The ID of the region where the Enterprise Edition transit router is deployed.
PeerTransitRouterId	String	tr-m5eq27g6bndum7e88****	The ID of the peer transit router.
TransitRouterId	String	tr-bp1su1ytdxtataupl****	The ID of the Enterprise Edition transit router.
PeerTransitRouterRegionId	String	cn-qingdao	The ID of the region where the peer transit router is deployed.
ResourceType	String	TR	The type of the resource to which the transit router is connected. Valid values: • **VPC**: virtual private cloud (VPC) • **CCN**: Cloud Connect Network (CCN) instance • **VBR**: virtual border router (VBR) • **TR**: transit router
Bandwidth	Integer	2	The bandwidth value of the cross-region connection. Unit: Mbit/s. • If **BandwidthType** is set to **BandwidthPackage**, this parameter indicates the bandwidth that is available for the cross-region connection. • If **BandwidthType** is set to **DataTransfer**, this parameter indicates the bandwidth limit of the cross-region connection.
GeographicSpanId	String	china_china	The areas that are connected by the bandwidth plan.
PeerTransitRouterOwnerId	Long	253460731706911258	The ID of the Alibaba Cloud account to which the peer transit router belongs.
AutoPublishRouteEnabled	Boolean	false	Indicates whether the local Enterprise Edition transit router automatically advertises routes of the cross-region connection to the peer transit router. Valid values: • **false** (default): no • **true**: yes
TransitRouterAttachmentName	String	test	The name of the cross-region connection.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ListTransitRouterPeerAttachments
&<Common request parameters>
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<ListTransitRouterPeerAttachmentsResponse>
    <TotalCount>1</TotalCount>
    <RequestId>AA97AFA3-8E48-4BD7-9F3E-A9F6176018A0</RequestId>
    <MaxResults>20</MaxResults>
    <TransitRouterAttachments>
        <TransitRouterAttachmentId>tr-attach-5u4qbayfv2io5v****</TransitRouterAttachmentId>
        <Status>Attached</Status>
        <GeographicSpanId>china_china</GeographicSpanId>
        <PeerTransitRouterOwnerId>253460731706911258</PeerTransitRouterOwnerId>
        <TransitRouterAttachmentName>test</TransitRouterAttachmentName>
        <ResourceType>TR</ResourceType>
        <BandwidthType>BandwidthPackage</BandwidthType>
        <AutoPublishRouteEnabled>false</AutoPublishRouteEnabled>
        <Bandwidth>0</Bandwidth>
        <CreationTime>2021-06-16T02:50Z</CreationTime>
        <BandwidthPackageId/>
        <PeerTransitRouterId>tr-m5eq27g6bndum7e88****</PeerTransitRouterId>
        <RegionId>cn-hangzhou</RegionId>
        <CenBandwidthPackageId/>
        <PeerTransitRouterRegionId>cn-qingdao</PeerTransitRouterRegionId>
        <TransitRouterId>tr-bp1su1ytdxtataupl****</TransitRouterId>
    </TransitRouterAttachments>
</ListTransitRouterPeerAttachmentsResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "TotalCount" : 1,
  "RequestId" : "AA97AFA3-8E48-4BD7-9F3E-A9F6176018A0",
  "MaxResults" : 20,
  "TransitRouterAttachments" : [ {
    "TransitRouterAttachmentId" : "tr-attach-5u4qbayfv2io5v****",
    "Status" : "Attached",
    "GeographicSpanId" : "china_china",
    "PeerTransitRouterOwnerId" : "253460731706911258",
    "TransitRouterAttachmentName" : "test",
    "ResourceType" : "TR",
    "BandwidthType" : "BandwidthPackage",
    "AutoPublishRouteEnabled" : false,
    "Bandwidth" : 0,
    "CreationTime" : "2021-06-16T02:50Z",
    "BandwidthPackageId" : "",
    "PeerTransitRouterId" : "tr-m5eq27g6bndum7e88****",
    "RegionId" : "cn-hangzhou",
    "CenBandwidthPackageId" : "",
    "PeerTransitRouterRegionId" : "cn-qingdao",
    "TransitRouterId" : "tr-bp1su1ytdxtataupl****"
  } ]
}
```

Error codes

HttpCode	Error code	Error message	Description
400	IllegalParam.NextToken	The specified NextToken is invalid.	The error message returned because the value of NextToken is invalid.
400	IllegalParam.TrInstance	The specified TransitRouter is invalid.	The error message returned because the ID of the transit router is invalid.
400	IllegalParam.CenId	The specified CenId is invalid.	The error message returned because the ID of the CEN instance is invalid.

For a list of error codes, visit the API Error Center.

11.5. SetCenInterRegionBandwidthLimit

Sets, changes, or removes the bandwidth limit of a cross-region connection.

Prerequisites

The Cloud Enterprise Network (CEN) instance is associated with a bandwidth plan. For more information, see the CreateCenBandwidthPackage and AssociateCenBandwidthPackage topics.

Description

You can call the SetCenInterRegionBandwidthLimit operation to set, change, or remove the bandwidth limit of a cross-region connection.

- If you set **BandwidthLimit** to a value other than 0, the bandwidth limit of the cross-region connection is set or changed to the specified value.
- If you set **BandwidthLimit** to 0, the bandwidth limit of the cross-region connection is removed.

Limits

- The bandwidth limit of a cross-region connection cannot exceed the bandwidth limit of the associated bandwidth plan.
- The sum of bandwidth limits of all cross-region connections cannot exceed the bandwidth limit of the associated bandwidth plan.
- If bandwidth multiplexing is enabled for a cross-region connection, you cannot change the bandwidth limit of the cross-region connection.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	SetCenInterRegionBandwidthLimit	The operation that you want to perform. Set the value to **SetCenInterRegionBandwidthLimit**.
BandwidthLimit	Long	Yes	8	The bandwidth limit of the cross-region connection. Unit: Mbit/s.
CenId	String	Yes	cen-7qthudw0ll6jmx****	The ID of the CEN instance.
LocalRegionId	String	Yes	cn-hangzhou	The ID of the local region. You can call the DescribeChildInstanceRegions operation to query regions where you can attach network instances to a CEN instance.
OppositeRegionId	String	Yes	us-west-1	The ID of the peer region.

Response parameters

Parameter	Type	Example	Description
RequestId	String	530BC816-F575-412A-AAB2-435125D26328	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=SetCenInterRegionBandwidthLimit
&BandwidthLimit=8
&CenId=cen-7qthudw0ll6jmx****
&LocalRegionId=cn-hangzhou
&OppositeRegionId=us-west-1
&<Common request parameters>
```

Sample success responses

`XML` format

```
<SetCenInterRegionBandwidthLimitResponse>
     <RequestId>530BC816-F575-412A-AAB2-435125D26328</RequestId>
</SetCenInterRegionBandwidthLimitResponse>
```

`JSON` format

```
{ "RequestId": "530BC816-F575-412A-AAB2-435125D26328" }
```

Error codes

HttpCode	Error code	Error message	Description
400	OperationUnsupported.Attachment	The cross region connection contains an existing bandwidth. The operation is not supported.	The error message returned because bandwidth multiplexing is enabled for the cross-region connection.

For a list of error codes, visit the API Error Center.

11.6. DescribeCenInterRegionBandwidthLimits

Queries the bandwidth limits of cross-region connections.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeCenInterRegionBandwidthLimits	The operation that you want to perform. Set the value to **DescribeCenInterRegionBandwidthLimits**.
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.
PageSize	Integer	No	10	The number of entries to return per page. Default value: **10**. Valid values: **1** to **50**.
CenId	String	No	cen-pfa6ugf3xl0qsd****	The ID of the Cloud Enterprise Network (CEN) instance.

Response parameters

Parameter	Type	Example	Description
CenInterRegionBandwidthLimits	Array of CenInterRegionBandwidthLimit		The list of cross-region connections.
CenInterRegionBandwidthLimit			
BandwidthLimit	Long	1	The bandwidth limit of the cross-region connection. Unit: Mbit/s.
BandwidthPackageId	String	cenbwp-uenczwb592fnvv****	The ID of the bandwidth plan.
CenId	String	cen-pfa6ugf3xl0qsd****	The ID of the CEN instance.

Parameter	Type	Example	Description
GeographicSpanId	String	china_china	The connected areas.
LocalRegionId	String	ccn-cn-shanghai	The ID of the local region. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
OppositeRegionId	String	cn-hangzhou	The ID of the peer region.
Status	String	Active	The status of the bandwidth of the cross-region connection. Valid values: • **Active**: The bandwidth limit of the cross-region connection is effective. • **Modifying**: The bandwidth limit of the cross-region connection is being changed.
PageNumber	Integer	1	The page number of the returned page.
PageSize	Integer	10	The number of entries returned per page.
RequestId	String	7A30C665-8766-5AAA-9274-C97380E2D850	The ID of the request.
TotalCount	Integer	1	The total number of entries returned.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeCenInterRegionBandwidthLimits
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeCenInterRegionBandwidthLimitsResponse>
  <CenInterRegionBandwidthLimits>
        <CenInterRegionBandwidthLimit>
              <Status>Active</Status>
              <GeographicSpanId>china_china</GeographicSpanId>
              <OppositeRegionId>cn-hangzhou</OppositeRegionId>
              <CenId>cen-pfa6ugf3xl0qsd****</CenId>
              <BandwidthPackageId>cenbwp-uenczwb592fnvv****</BandwidthPackageId>
              <BandwidthLimit>1</BandwidthLimit>
              <LocalRegionId>ccn-cn-shanghai</LocalRegionId>
        </CenInterRegionBandwidthLimit>
  </CenInterRegionBandwidthLimits>
  <TotalCount>1</TotalCount>
  <RequestId>7A30C665-8766-5AAA-9274-C97380E2D850</RequestId>
  <PageSize>10</PageSize>
  <PageNumber>1</PageNumber>
</DescribeCenInterRegionBandwidthLimitsResponse>
```

`JSON` format

```
{
    "CenInterRegionBandwidthLimits": {
        "CenInterRegionBandwidthLimit": [
            {
                "Status": "Active",
                "GeographicSpanId": "china_china",
                "OppositeRegionId": "cn-hangzhou",
                "CenId": "cen-pfa6ugf3xl0qsd****",
                "BandwidthPackageId": "cenbwp-uenczwb592fnvv****",
                "BandwidthLimit": 1,
                "LocalRegionId": "ccn-cn-shanghai"
            }
        ]
    },
    "TotalCount": 1,
    "RequestId": "7A30C665-8766-5AAA-9274-C97380E2D850",
    "PageSize": 10,
    "PageNumber": 1
}
```


Error codes

For a list of error codes, visit the API Error Center.

12.Route management

12.1. DescribeCenRegionDomainRouteEntries

Queries the routes of a Cloud Enterprise Network (CEN) instance in a specified region.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeCenRegionDomainRouteEntries	The operation that you want to perform. Set the value to **DescribeCenRegionDomainRouteEntries**.
CenId	String	Yes	cen-7qthudw0ll6j****	The ID of the CEN instance.
CenRegionId	String	Yes	cn-hangzhou	The ID of the region that you want to query. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.
PageSize	Integer	No	10	The number of entries to return on each page. Default value: **10**. Valid values: **1** to **50**.
Status	String	No	Active	The status of the routes that you want to query. Valid values: • **Active** (default value): active routes • **Candidate**: standby routes • **Rejected**: rejected routes • **Prohibited**: prohibited routes • **All**: all routes

Response parameters

Parameter	Type	Example	Description
CenRouteEntries	Array of CenRouteEntry		The array of routes.
CenRouteEntry			
AsPaths	List	65501	The AS paths of the routes.
CenOutRouteMapRecords	Array of CenOutRouteMapRecord		The route maps that the routes match in the outbound direction.
CenOutRouteMapRecord			
RegionId	String	ccn-cn-shanghai	The ID of the region where the route map is applied.
RouteMapId	String	cenrmap-dbarzidzp7ek4k****	The ID of the route map.

Parameter	Type	Example	Description
CenRouteMapRecords	Array of CenRouteMapRecord		The route maps that the routes match in the inbound direction.
CenRouteMapRecord			
RegionId	String	cn-hangzhou	The ID of the region where the route map is applied.
RouteMapId	String	cenrmap-cz5axczdxb7yfu****	The ID of the route map.
Communities	List	65501:1	The community attributes of the routes.
DestinationCidrBlock	String	192.168.1.0/24	The destination CIDR block of the route.
NextHopInstanceId	String	vpc-bp1j8728mm6pweeod****	The ID of the instance specified as the next hop in the route.
NextHopRegionId	String	cn-hangzhou	The ID of the region where the network instance specified as the next hop in the route belongs.
NextHopType	String	VPC	The type of the network instance specified as the next hop in the route. • **VPC** • **VBR** • **CCN** • **local_service**: system route. No next hop is specified.
Preference	Integer	50	The priority of the route. A smaller value indicates a higher priority.
Status	String	Active	The status of the route. Valid values: • **Active**: The route is active. • **Candidate**: The route is a standby route. • **Rejected**: The route is rejected. • **Prohibited**: The route is prohibited.
ToOtherRegionStatus	String	Active	Whether the route can be advertised to other regions. Valid values: • **Active**: The route can be advertised to other regions. • **Prohibited**: The route cannot be advertised to other regions.
Type	String	CEN	The type of the route. Valid values: • **CEN**: route that is advertised through CEN • **Custom**: custom route • **System**: system route
PageNumber	Integer	1	The page number of the returned page.
PageSize	Integer	10	The number of entries returned per page.
RequestId	String	004E99FB-E996-5777-888E-BA1D8F215407	The ID of the request.

Parameter	Type	Example	Description
TotalCount	Integer	4	The total number of entries returned.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeCenRegionDomainRouteEntries
&CenId=cen-7qthudw0ll6j****
&CenRegionId=cn-hangzhou
&<Common request parameters>
```

Sample responses

`XML` format

```
<DescribeCenRegionDomainRouteEntriesResponse>
  <TotalCount>4</TotalCount>
  <RequestId>004E99FB-E996-5777-888E-BA1D8F215407</RequestId>
  <PageSize>10</PageSize>
  <PageNumber>1</PageNumber>
  <CenRouteEntries>
        <CenRouteEntry>
              <Status>Active</Status>
              <ToOtherRegionStatus>Active</ToOtherRegionStatus>
              <CenOutRouteMapRecords>
                    <CenOutRouteMapRecord>
                          <RegionId>ccn-cn-shanghai</RegionId>
                          <RouteMapId>cenrmap-dbarzidzp7ek4k****</RouteMapId>
                    </CenOutRouteMapRecord>
              </CenOutRouteMapRecords>
              <NextHopType>VPC</NextHopType>
              <NextHopRegionId>cn-hangzhou</NextHopRegionId>
              <Type>CEN</Type>
              <Preference>50</Preference>
              <Communities>
        </Communities>
              <CenRouteMapRecords>
        </CenRouteMapRecords>
              <DestinationCidrBlock>10.0.8.0/24</DestinationCidrBlock>
              <AsPaths>
        </AsPaths>
              <NextHopInstanceId>vpc-bp1j8728mm6pweeod****</NextHopInstanceId>
        </CenRouteEntry>
        <CenRouteEntry>
              <Status>Active</Status>
              <CenOutRouteMapRecords>
        </CenOutRouteMapRecords>
              <NextHopType>local_service</NextHopType>
              <NextHopRegionId>cn-hangzhou</NextHopRegionId>
              <Type>System</Type>
              <Preference>50</Preference>
              <Communities>
        </Communities>
              <CenRouteMapRecords>
        </CenRouteMapRecords>
              <DestinationCidrBlock>100.64.0.0/10</DestinationCidrBlock>
              <AsPaths>
        </AsPaths>
        </CenRouteEntry>
        <CenRouteEntry>
              <Status>Active</Status>
              <CenOutRouteMapRecords>
        </CenOutRouteMapRecords>
              <NextHopType>CCN</NextHopType>
              <NextHopRegionId>ccn-cn-shanghai</NextHopRegionId>
              <Type>CEN</Type>
              <Preference>50</Preference>
              <Communities>
        </Communities>
```

```
        </Communities>
            <CenRouteMapRecords>
                <CenRouteMapRecord>
                    <RegionId>cn-hangzhou</RegionId>
                    <RouteMapId>cenrmap-cz5axczdxb7yfu****</RouteMapId>
                </CenRouteMapRecord>
            </CenRouteMapRecords>
            <DestinationCidrBlock>172.16.0.0/16</DestinationCidrBlock>
            <AsPaths>
        </AsPaths>
            <NextHopInstanceId>ccn-0q3b7oviikmm9h*****</NextHopInstanceId>
        </CenRouteEntry>
        <CenRouteEntry>
            <Status>Active</Status>
            <CenOutRouteMapRecords>
        </CenOutRouteMapRecords>
            <NextHopType>CCN</NextHopType>
            <NextHopRegionId>ccn-cn-shanghai</NextHopRegionId>
            <Type>CEN</Type>
            <Preference>50</Preference>
            <Communities>
        </Communities>
            <CenRouteMapRecords>
                <CenRouteMapRecord>
                    <RegionId>cn-hangzhou</RegionId>
                    <RouteMapId>cenrmap-cz5axczdxb7yfu****</RouteMapId>
                </CenRouteMapRecord>
            </CenRouteMapRecords>
            <DestinationCidrBlock>192.168.2.0/24</DestinationCidrBlock>
            <AsPaths>
        </AsPaths>
            <NextHopInstanceId>ccn-0q3b7oviikmm9h****</NextHopInstanceId>
        </CenRouteEntry>
  </CenRouteEntries>
</DescribeCenRegionDomainRouteEntriesResponse>
```

`JSON` format

```
{
    "TotalCount": 4,
    "RequestId": "004E99FB-E996-5777-888E-BA1D8F215407",
    "PageSize": 10,
    "PageNumber": 1,
    "CenRouteEntries": {
        "CenRouteEntry": [
            {
                "Status": "Active",
                "ToOtherRegionStatus": "Active",
                "CenOutRouteMapRecords": {
                    "CenOutRouteMapRecord": [
                        {
                            "RegionId": "ccn-cn-shanghai",
                            "RouteMapId": "cenrmap-dbarzidzp7ek4k****"
                        }
                    ]
                },
                "NextHopType": "VPC",
                "NextHopRegionId": "cn-hangzhou",
                "Type": "CEN",
                "Preference": 50,
                "Communities": {
                    "Community": []
                },
                "CenRouteMapRecords": {
                    "CenRouteMapRecord": []
                },
                "DestinationCidrBlock": "10.0.8.0/24",
                "AsPaths": {
                    "AsPath": []
                },
                "NextHopInstanceId": "vpc-bp1j8728mm6pweeod****"
            },
```

```
            {
                "Status": "Active",
                "CenOutRouteMapRecords": {
                    "CenOutRouteMapRecord": []
                },
                "NextHopType": "local_service",
                "NextHopRegionId": "cn-hangzhou",
                "Type": "System",
                "Preference": 50,
                "Communities": {
                    "Community": []
                },
                "CenRouteMapRecords": {
                    "CenRouteMapRecord": []
                },
                "DestinationCidrBlock": "100.64.0.0/10",
                "AsPaths": {
                    "AsPath": []
                }
            },
            {
                "Status": "Active",
                "CenOutRouteMapRecords": {
                    "CenOutRouteMapRecord": []
                },
                "NextHopType": "CCN",
                "NextHopRegionId": "ccn-cn-shanghai",
                "Type": "CEN",
                "Preference": 50,
                "Communities": {
                    "Community": []
                },
                "CenRouteMapRecords": {
                    "CenRouteMapRecord": [
                        {
                            "RegionId": "cn-hangzhou",
                            "RouteMapId": "cenrmap-cz5axczdxb7yfu****"
                        }
                    ]
                },
                "DestinationCidrBlock": "172.16.0.0/16",
                "AsPaths": {
                    "AsPath": []
                },
                "NextHopInstanceId": "ccn-0q3b7oviikmm9h*****"
            },
            {
                "Status": "Active",
                "CenOutRouteMapRecords": {
                    "CenOutRouteMapRecord": []
                },
                "NextHopType": "CCN",
                "NextHopRegionId": "ccn-cn-shanghai",
                "Type": "CEN",
                "Preference": 50,
                "Communities": {
                    "Community": []
                },
                "CenRouteMapRecords": {
                    "CenRouteMapRecord": [
                        {
                            "RegionId": "cn-hangzhou",
                            "RouteMapId": "cenrmap-cz5axczdxb7yfu****"
                        }
                    ]
                },
                "DestinationCidrBlock": "192.168.2.0/24",
                "AsPaths": {
                    "AsPath": []
                },
                "NextHopInstanceId": "ccn-0q3b7oviikmm9h****"
            }
```

```
        ]
    }
}
```

Error codes

For a list of error codes, visit the API Error Center.

12.2. DescribeCenChildInstanceRouteEntries

Queries the routes configured on a network instance that is attached to a Cloud Enterprise Network (CEN) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeCenChildInstanceRouteEntries	The operation that you want to perform. Set the value to **DescribeCenChildInstanceRouteEntries**.
CenId	String	Yes	cen-7qthudw0ll6jmc****	The ID of the CEN instance.
ChildInstanceId	String	Yes	vpc-bp18sth14qii3pnvo****	The ID of the network instance.
ChildInstanceRegionId	String	Yes	cn-hangzhou	The ID of the region where the network instance is deployed. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
ChildInstanceType	String	Yes	VPC	The type of the network instance. Valid values: • **VPC** • **VBR** • **CCN**
Status	String	No	Active	The status of the routes that you want to query. Valid values: • **Active**: active routes • **Candidate**: standby routes • **Rejected**: rejected routes • **Prohibited**: prohibited routes • **All** (default value): all routes
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.
PageSize	Integer	No	10	The number of entries to return on each page. Default value: **10**. Valid values: **1** to **50**.

Response parameters

Parameter	Type	Example	Description
CenRouteEntries	Array of CenRouteEntry		The array of routes.
CenRouteEntry			

Parameter	Type	Example	Description
AsPaths	List	65501	The AS paths of the routes.
CenRouteMapRecords	Array of CenRouteMapRecord		The route maps that the routes match.
CenRouteMapRecord			
RegionId	String	cn-hangzhou	The ID of the region where the route map is applied.
RouteMapId	String	cenrmap-w4yf7toozfol3q****	The ID of the route map.
Communities	List	65501:1	The community attributes of the routes.
Conflicts	Array of Conflict		The array of conflicting routes.
Conflict			
DestinationCidrBlock	String	192.168.1.0/24	The destination CIDR block of the conflicting route.
InstanceId	String	ccn-0q3b7oviikmm9h****	The ID of the peer network instance on which conflicting routes are found.
InstanceType	String	CCN	The type of the peer network instance on which conflicting routes are found. • **VPC** • **VBR** • **CCN**
RegionId	String	ccn-cn-shanghai	The ID of the region where the peer network instance on which conflicting routes are found is deployed.
Status	String	conflict	The cause of the route error. Valid values: • **conflict**: Two routes have the same destination CIDR block. • **overflow**: The number of routes in the route table configured on another network instance reached the upper limit.
DestinationCidrBlock	String	10.0.0.0/24	The destination CIDR block of the route.
NextHopInstanceId	String	vbr-bp13gtbhdp0pfqg6s****	The ID of the instance specified as the next hop in the route.
NextHopRegionId	String	cn-hangzhou	The ID of the region where the instance specified as the next hop in the route belongs.

Parameter	Type	Example	Description
NextHopType	String	VBR	The type of the instance specified as the next hop in the route. • **Instance**: ECS instance • **HaVip**: HAVIP • **RouterInterface**: router interface • **NetworkInterface**: ENI • **VpnGateway**: VPN gateway • **Ipv6Gateway**: IPv6 gateway • **NatGateway**: NAT gateway • **Attachment**: network instance connection • **service**: cloud service • **VBR**: virtual border router • **CCN**: CCN instance • **VPC**: virtual private cloud • **local**: system route. No next hop is specified. • **TR**: transit router • **BlackHole**: blackhole route. No next hop is specified. • **EcRouterInterface**: router interface for Express Connect • **HealthCheck**: health check • **AS**: access gateway for CCN • **classic**: classic network-type instance • **GatewayEndpoint**: gateway endpoint • **CPE**: data center connected by VBRs
OperationalMode	Boolean	true	Indicates whether the route is allowed to be advertised to or withdrawn from the CEN instance. Valid values: • **true**: The route is allowed to be advertised to or withdrawn from the CEN instance. • **false**: The route is not allowed to be advertised to or withdrawn from the CEN instance.
PublishStatus	String	Published	Indicates whether the route is advertised to the CEN instance. Valid values: • **Published**: The route is advertised to the CEN instance. • **NonPublished**: The route is not advertised to the CEN instance.
RouteTableId	String	vtb-bp1r9pvl4xen8s9ju****	The ID of the route table.
Status	String	Active	The status of the route. Valid values: • **Active**: The route is active. • **Candidate**: The route is a standby route. • **Rejected**: The route is rejected. • **Prohibited**: The route is prohibited.
Type	String	CEN	The type of the route. Valid values: • **CEN**: route that is advertised through CEN • **System**: system route • **Custom**: custom route
PageNumber	Integer	1	The page number of the returned page.
PageSize	Integer	10	The number of entries returned per page.

Parameter	Type	Example	Description
RequestId	String	17A57456-EF48-419D-9AE6-9B03D9996018	The ID of the request.
TotalCount	Integer	4	The total number of entries returned.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeCenChildInstanceRouteEntries
&CenId=cen-7qthudw0ll6jmc****
&ChildInstanceId=vpc-bp18sth14qii3pnvo****
&ChildInstanceRegionId=cn-hangzhou
&ChildInstanceType=vpc
&<Common request parameters>
```

Sample responses

`XML` format

```
<DescribeCenChildInstanceRouteEntriesResponse>
      <PageNumber>1</PageNumber>
      <TotalCount>4</TotalCount>
      <PageSize>10</PageSize>
      <RequestId>17A57456-EF48-419D-9AE6-9B03D9996018</RequestId>
      <CenRouteEntries>
            <CenRouteEntry>
                  <NextHopInstanceId>vbr-bp13gtbhdp0pfqg6s****</NextHopInstanceId>
                  <CenRouteMapRecords>
                        <CenRouteMapRecord>
                              <RouteMapId>cenrmap-41cjxzo2zyqjd3****</RouteMapId>
                              <RegionId>cn-hangzhou</RegionId>
                        </CenRouteMapRecord>
                  </CenRouteMapRecords>
                  <OperationalMode>false</OperationalMode>
                  <Status>Active</Status>
                  <AsPaths></AsPaths>
                  <Communities></Communities>
                  <Type>CEN</Type>
                  <RouteTableId>vtb-bp1r9pvl4xen8s9ju****</RouteTableId>
                  <NextHopRegionId>cn-hangzhou</NextHopRegionId>
                  <NextHopType>VBR</NextHopType>
                  <Conflicts></Conflicts>
                  <DestinationCidrBlock>10.0.0.0/24</DestinationCidrBlock>
            </CenRouteEntry>
            <CenRouteEntry>
                  <CenRouteMapRecords></CenRouteMapRecords>
                  <OperationalMode>false</OperationalMode>
                  <Status>Active</Status>
                  <AsPaths></AsPaths>
                  <Communities></Communities>
                  <Type>System</Type>
                  <RouteTableId>vtb-bp1r9pvl4xen8s9ju****</RouteTableId>
                  <NextHopType>service</NextHopType>
                  <Conflicts></Conflicts>
                  <DestinationCidrBlock>100.64.0.0/10</DestinationCidrBlock>
                  <PublishStatus>NonPublished</PublishStatus>
            </CenRouteEntry>
            <CenRouteEntry>
                  <CenRouteMapRecords></CenRouteMapRecords>
                  <OperationalMode>true</OperationalMode>
                  <Status>Active</Status>
                  <AsPaths></AsPaths>
                  <Communities></Communities>
                  <Type>System</Type>
                  <RouteTableId>vtb-bp1r9pvl4xen8s9ju****</RouteTableId>
                  <NextHopType>local</NextHopType>
                  <Conflicts></Conflicts>
                  <DestinationCidrBlock>172.16.0.0/24</DestinationCidrBlock>
```

```
                <DestinationCidrBlock>172.16.0.0/24</DestinationCidrBlock>
                <PublishStatus>Published</PublishStatus>
            </CenRouteEntry>
            <CenRouteEntry>
                <NextHopInstanceId>vbr-bp13gtbhdp0pfqg6s****</NextHopInstanceId>
                <CenRouteMapRecords>
                    <CenRouteMapRecord>
                        <RouteMapId>cenrmap-4lcjxzo2zyqjd3****</RouteMapId>
                        <RegionId>cn-hangzhou</RegionId>
                    </CenRouteMapRecord>
                </CenRouteMapRecords>
                <OperationalMode>false</OperationalMode>
                <Status>Active</Status>
                <AsPaths></AsPaths>
                <Communities></Communities>
                <Type>CEN</Type>
                <RouteTableId>vtb-bp1r9pvl4xen8s9ju****</RouteTableId>
                <NextHopRegionId>cn-hangzhou</NextHopRegionId>
                <NextHopType>VBR</NextHopType>
                <Conflicts></Conflicts>
                <DestinationCidrBlock>192.168.2.0/24</DestinationCidrBlock>
            </CenRouteEntry>
        </CenRouteEntries>
</DescribeCenChildInstanceRouteEntriesResponse>
```

`JSON` format

```
{
    "PageNumber": 1,
    "TotalCount": 4,
    "PageSize": 10,
    "RequestId": "17A57456-EF48-419D-9AE6-9B03D9996018",
    "CenRouteEntries": {
        "CenRouteEntry": [
            {
                "NextHopInstanceId": "vbr-bp13gtbhdp0pfqg6s****",
                "CenRouteMapRecords": {
                    "CenRouteMapRecord": [
                        {
                            "RouteMapId": "cenrmap-4lcjxzo2zyqjd3****",
                            "RegionId": "cn-hangzhou"
                        }
                    ]
                },
                "OperationalMode": false,
                "Status": "Active",
                "AsPaths": {
                    "AsPath": []
                },
                "Communities": {
                    "Community": []
                },
                "Type": "CEN",
                "RouteTableId": "vtb-bp1r9pvl4xen8s9ju****",
                "NextHopRegionId": "cn-hangzhou",
                "NextHopType": "VBR",
                "Conflicts": {
                    "Conflict": []
                },
                "DestinationCidrBlock": "10.0.0.0/24"
            },
            {
                "CenRouteMapRecords": {
                    "CenRouteMapRecord": []
                },
                "OperationalMode": false,
                "Status": "Active",
                "AsPaths": {
                    "AsPath": []
                },
                "Communities": {
                    "Community": []
```

```
                },
                "Type": "System",
                "RouteTableId": "vtb-bp1r9pvl4xen8s9ju****",
                "NextHopType": "service",
                "Conflicts": {
                    "Conflict": []
                },
                "DestinationCidrBlock": "100.64.0.0/10",
                "PublishStatus": "NonPublished"
            },
            {
                "CenRouteMapRecords": {
                    "CenRouteMapRecord": []
                },
                "OperationalMode": true,
                "Status": "Active",
                "AsPaths": {
                    "AsPath": []
                },
                "Communities": {
                    "Community": []
                },
                "Type": "System",
                "RouteTableId": "vtb-bp1r9pvl4xen8s9ju****",
                "NextHopType": "local",
                "Conflicts": {
                    "Conflict": []
                },
                "DestinationCidrBlock": "172.16.0.0/24",
                "PublishStatus": "Published"
            },
            {
                "NextHopInstanceId": "vbr-bp13gtbhdp0pfqg6s****",
                "CenRouteMapRecords": {
                    "CenRouteMapRecord": [
                        {
                            "RouteMapId": "cenrmap-4lcjxzo2zyqjd3****",
                            "RegionId": "cn-hangzhou"
                        }
                    ]
                },
                "OperationalMode": false,
                "Status": "Active",
                "AsPaths": {
                    "AsPath": []
                },
                "Communities": {
                    "Community": []
                },
                "Type": "CEN",
                "RouteTableId": "vtb-bp1r9pvl4xen8s9ju****",
                "NextHopRegionId": "cn-hangzhou",
                "NextHopType": "VBR",
                "Conflicts": {
                    "Conflict": []
                },
                "DestinationCidrBlock": "192.168.2.0/24"
            }
        ]
    }
}
```


Error codes

For a list of error codes, visit the API Error Center.

12.3. DescribePublishedRouteEntries

Queries whether the routes of a network instance attached to a Cloud Enterprise Network (CEN) instance are advertised.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribePublishedRouteEntries	The operation that you want to perform. Set the value to **DescribePublishedRouteEntries**.
CenId	String	Yes	cen-7qthudw0ll6jm****	The ID of the CEN instance.
ChildInstanceId	String	Yes	vpc-bp18sth14qii3pnv****	The ID of the network instance attached to the CEN instance.
ChildInstanceRegionId	String	Yes	cn-hangzhou	The ID of the region where the network instance is deployed. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
ChildInstanceType	String	Yes	VPC	The type of the network instance. Valid values: • **VPC** • **VBR** • **CCN**
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.
PageSize	Integer	No	10	The number of entries to return on each page. Default value: **10**. Valid values: **1** to **50**.
ChildInstanceRouteTableId	String	No	vtb-bp174d1gje79u1g4****	The ID of the route table configured on the network instance.
DestinationCidrBlock	String	No	172.16.0.0/16	The destination CIDR block of the route that you want to query.

Response parameters

Parameter	Type	Example	Description
PageNumber	Integer	1	The page number of the returned page.
PageSize	Integer	10	The number of entries to return on each page.
PublishedRouteEntries	Array of PublishedRouteEntry		The array of routes.
PublishedRouteEntry			
ChildInstanceRouteTableId	String	vtb-il7qut3mjgtlcbpk2****	The ID of the route table configured on the network instance.
Conflicts	Array of Conflict		The array of conflicting routes.
Conflict			

Parameter	Type	Example	Description
DestinationCidrBlock	String	192.168.20.0/24	The destination CIDR block of the conflicting route.
InstanceId	String	ccn-0q3b7oviikmm9h****	The ID of the peer network instance on which conflicting routes are found.
InstanceType	String	CCN	The type of the peer network instance on which conflicting routes are found. Valid values: • **VPC** • **VBR** • **CCN**
RegionId	String	ccn-cn-shanghai	The region ID of the peer network instance on which conflicting routes are found is deployed.
Status	String	conflict	The cause of the route error. Valid values: • **conflict**: Routes have the same destination CIDR block. • **overflow**: The number of routes in the route table configured on another network instance has reached the upper limit.
DestinationCidrBlock	String	172.16.0.0/16	The destination CIDR block of the route.
NextHopId	String	ecs-bp18sth14qii3pn****	The ID of the instance specified as the next hop in the route.
NextHopType	String	Instance	The type of the instance specified as the next hop in the route. • **Instance**: ECS instance • **HaVip**: HAVIP • **RouterInterface**: router interface • **NetworkInterface**: ENI • **VpnGateway**: VPN gateway • **IPv6Gateway**: IPv6 gateway • **NatGateway**: NAT gateway • **Attachment**: network instance connection • **service**: cloud service • **VBR**: virtual border router • **CCN**: CCN instance • **VPC**: virtual private cloud • **local**: system route. No next hop is specified. • **TR**: transit router • **BlackHole**: blackhole route. No next hop is specified. • **EcRouterInterface**: router interface for Express Connect • **HealthCheck**: health check • **AS**: access gateway for CCN • **classic**: classic network-type instance • **GatewayEndpoint**: gateway endpoint • **CPE**: data center connected by VBRs
OperationalMode	Boolean	true	Indicates whether the route is allowed to be advertised to or withdrawn from the CEN instance. Valid values: • **true**: The route is allowed to be advertised to or withdrawn from the CEN instance. • **false**: The route is not allowed to be advertised to or withdrawn from the CEN instance.

Parameter	Type	Example	Description
PublishStatus	String	Published	Indicates whether the route is advertised to the CEN instance. Valid values: • **Published**: The route is advertised to the CEN instance. • **NonPublished**: The route is not advertised to the CEN instance.
RouteType	String	System	The type of the route. Valid values: • **CEN**: route that is advertised through CEN • **System**: system route • **Custom**: custom route
RequestId	String	FF1A7B2A-677F-4F71-96EA-6002B329F437	The ID of the request.
TotalCount	Integer	2	The total number of entries returned.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribePublishedRouteEntries
&CenId=cen-7qthudw0ll6jm****
&ChildInstanceId=vpc-bp18sth14qii3pnv****
&ChildInstanceRegionId=cn-hangzhou
&ChildInstanceType=VPC
&<Common request parameters>
```

Sample responses

`XML` format

```
<DescribeRouteConflictResponse>
      <TotalCount>2</TotalCount>
      <PublishRouteEntries>
            <PublishRouteEntries>
                  <DestinationCidrBlock>100.64.0.0/10</DestinationCidrBlock>
                  <NextHopId></NextHopId>
                  <NextHopType>service</NextHopType>
                  <ChildInstanceRouteTableId>vtb-il7qut3mjgtlcbpk2****</ChildInstanceRouteTableId>
                  <PublishStatus>NonPublished</PublishStatus>
                  <RouteConflicts></RouteConflicts>
                  <RouteType>System</RouteType>
            </PublishRouteEntries>
            <PublishRouteEntries>
                  <DestinationCidrBlock>192.168.10.0/24</DestinationCidrBlock>
                  <NextHopId></NextHopId>
                  <NextHopType>local</NextHopType>
                  <ChildInstanceRouteTableId>vtb-il7qut3mjgtlcbpk2****</ChildInstanceRouteTableId>
                  <PublishStatus>Published</PublishStatus>
                  <RouteConflicts></RouteConflicts>
                  <RouteType>System</RouteType>
            </PublishRouteEntries>
      </PublishRouteEntries>
      <PageNumber>1</PageNumber>
      <RequestId>FF1A7B2A-677F-4F71-96EA-6002B329F437</RequestId>
      <PageSize>10</PageSize>
</DescribeRouteConflictResponse>
```

`JSON` format

```
{
    "TotalCount": 2,
    "PublishRouteEntries": {
        "PublishRouteEntries": [
            {
                "DestinationCidrBlock": "100.64.0.0/10",
                "NextHopId": "",
                "NextHopType": "service",
                "ChildInstanceRouteTableId": "vtb-il7qut3mjgtlcbpk2****",
                "PublishStatus": "NonPublished",
                "RouteConflicts": {
                    "RouteConflicts": []
                },
                "RouteType": "System"
            },
            {
                "DestinationCidrBlock": "192.168.10.0/24",
                "NextHopId": "",
                "NextHopType": "local",
                "ChildInstanceRouteTableId": "vtb-il7qut3mjgtlcbpk2****",
                "PublishStatus": "Published",
                "RouteConflicts": {
                    "RouteConflicts": []
                },
                "RouteType": "System"
            }
        ]
    },
    "PageNumber": 1,
    "RequestId": "FF1A7B2A-677F-4F71-96EA-6002B329F437",
    "PageSize": 10
}
```


Error codes

HttpCode	Error codes	Error message	Description
400	ParameterIllegal.CenInstanceId	The parameter of CEN instance id is illegal.	The error message returned because the ID of the CEN instance is invalid.
400	ParameterIllegal.ChildInstanceRegionId	The parameter of child instance region id is illegal.	The error message returned because the ID of the region where the network instance is created is invalid.
409	InvalidOperation.ChildInstanceStatus	The child-instance is not in a valid state for the operation.	The error message returned because the operation is not allowed when the network instance is being processed. Try again later.
409	InvalidOperation.CenInstanceStatus	The CEN instance is not in a valid state for the operation.	The error message returned because the CEN instance is being processed. Try again later.
400	ParameterIllegal.ChildInstanceType	The parameter of child instance type is illegal.	The error message returned because the type of the network instance is invalid.
500	InternalError	Internal error.	The error message returned because an internal error occurred.

For a list of error codes, visit the API Error Center.

12.4. DescribeRouteConflict

Queries conflicting routes on a network instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeRouteConflict	The operation that you want to perform. Set the value to **DescribeRouteConflict**.
ChildInstanceId	String	Yes	ccn-0q3b7oviikmm9h****	The ID of the network instance that you want to query.
ChildInstanceRegionId	String	Yes	ccn-cn-shanghai	The ID of the region where the network instance is deployed. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
ChildInstanceRouteTableId	String	Yes	vtb-bp174d1gje79u1g4t****	The ID of the route table that is configured on the network instance.
ChildInstanceType	String	Yes	CCN	The type of the network instance. Valid values: • **VPC** • **VBR** • **CCN**
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.
PageSize	Integer	No	10	The number of entries to return on each page. Default value: **10**. Valid values: **1** to **50**.
DestinationCidrBlock	String	No	172.16.0.0/16	The destination CIDR block of the conflicting route.

Response parameters

Parameter	Type	Example	Description
PageNumber	Integer	1	The page number of the returned page.
PageSize	Integer	10	The number of entries returned per page.
RequestId	String	EE3A2CC7-41F1-58DB-8306-CFC99D9C747B	The ID of the request.
RouteConflicts	Array of RouteConflict		The array of conflicting routes.
RouteConflict			
DestinationCidrBlock	String	172.16.0.0/16	The destination CIDR block of the conflicting route.
InstanceId	String	ccn-0q3b7oviikmm9h****	The ID of the peer network instance on which conflicting routes are found.
InstanceType	String	CCN	The type of the peer network instance on which conflicting routes are found. • **VPC** • **VBR** • **CCN**

Parameter	Type	Example	Description
RegionId	String	ccn-cn-shanghai	The region ID of the peer network instance on which conflicting routes are found is deployed.
Status	String	conflict	The cause of the route error. Valid values: • **conflict**: Routes have the same destination CIDR block. • **overflow**: The number of routes in the route table configured on another network instance has reached the upper limit.
TotalCount	Integer	1	The total number of entries returned.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeRouteConflict
&ChildInstanceId=ccn-0q3b7oviikmm9h****
&ChildInstanceRegionId=ccn-cn-shanghai
&ChildInstanceRouteTableId=vtb-bp174d1gje79u1g4t****
&ChildInstanceType=CCN
&<Common request parameters>
```

Sample responses

`XML` format

```
<DescribeRouteConflictResponse>
  <TotalCount>1</TotalCount>
  <RequestId>EE3A2CC7-41F1-58DB-8306-CFC99D9C747B</RequestId>
  <PageSize>10</PageSize>
  <PageNumber>1</PageNumber>
  <RouteConflicts>
        <RouteConflict>
              <InstanceId>ccn-0q3b7oviikmm9h****</InstanceId>
              <DestinationCidrBlock>172.16.0.0/16</DestinationCidrBlock>
              <RegionId>ccn-cn-shanghai</RegionId>
              <InstanceType>CCN</InstanceType>
        </RouteConflict>
  </RouteConflicts>
</DescribeRouteConflictResponse>
```

`JSON` format

```
{
    "TotalCount": 1,
    "RequestId": "EE3A2CC7-41F1-58DB-8306-CFC99D9C747B",
    "PageSize": 10,
    "PageNumber": 1,
    "RouteConflicts": {
        "RouteConflict": [
            {
                "InstanceId": "ccn-0q3b7oviikmm9h****",
                "DestinationCidrBlock": "172.16.0.0/16",
                "RegionId": "ccn-cn-shanghai",
                "InstanceType": "CCN"
            }
        ]
    }
}
```

Error codes

For a list of error codes, visit the API Error Center.

12.5. PublishRouteEntries

Advertises the routes of a virtual private cloud (VPC) or virtual border routers (VBR) to the Cloud Enterprise Network (CEN) instance to which the VPC or VBR is attached.

Usage notes

The following table describes whether routes of different types are advertised to CEN by default. You can call the PublishRouteEntries operation to advertise routes to CEN.

Route	Network instance	Advertised to CEN by default
Routes that route network traffic to Elastic Compute Service (ECS) instances	VPC	No
Routes that route network traffic to VPN gateways	VPC	No
Routes that route network traffic to high-availability virtual IP addresses (HAVIPs)	VPC	No
Routes that route network traffic to router interfaces	VPC	No
Routes that route network traffic to elastic network interfaces (ENIs)	VPC	No
Routes that route network traffic to IPv6 gateways	VPC	No
Routes that route network traffic to NAT gateways	VPC	No.
System routes of VPCs	VPC	Yes
Routes that route network traffic to data centers	VBR	Yes
Border Gateway Protocol (BGP) routes	VBR	Yes

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	PublishRouteEntries	The operation that you want to perform. Set the value to **PublishRouteEntries**.
CenId	String	Yes	cen-7qthudw0ll6jmc****	The ID of the CEN instance.
ChildInstanceId	String	Yes	vpc-rj9gt5nll27onu****	The ID of the network instance attached to the CEN instance.

Parameter	Type	Required	Example	Description
ChildInstanceRegionId	String	Yes	us-west-1	The ID of the region where the network instance is deployed. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
ChildInstanceRouteTableId	String	Yes	vtb-bp174d1gje7****	The ID of the route table configured on the network instance.
ChildInstanceType	String	Yes	VPC	The type of the network instance. Valid values: • **VPC** • **VBR**
DestinationCidrBlock	String	Yes	172.16.1.0/24	The destination CIDR block of the route that you want to advertise.

Response parameters

Parameter	Type	Example	Description
RequestId	String	FBDB18D8-E91E-4978-8D6C-6E2E3EE10133	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=PublishRouteEntries
&CenId=cen-7qthudw0ll6jmc****
&ChildInstanceId=vpc-rj9gt5nll27onu****
&ChildInstanceRegionId=us-west-1
&ChildInstanceRouteTableId=vtb-bp174d1gje7****
&ChildInstanceType=VPC
&DestinationCidrBlock=172.16.1.0/24
&<Common request parameters>
```

Sample responses

`XML` format

```
<PublishRouteEntriesResponse>
      <RequestId>FBDB18D8-E91E-4978-8D6C-6E2E3EE101330</RequestId>
</PublishRouteEntriesResponse>
```

`JSON` format

```
{
    "RequestId": "FBDB18D8-E91E-4978-8D6C-6E2E3EE10133"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	ParameterIllegal.AliUid	The parameter of aliUid is illegal.	The error message returned because the account ID is invalid.
400	ParameterIllegal.CenInstanceId	The parameter of CEN instance id is illegal.	The error message returned because the ID of the CEN instance is invalid.

HttpCode	Error code	Error message	Description
400	ParameterIllegal.ChildInstanceRegionId	The parameter of child instance region id is illegal.	The error message returned because the ID of the region where the network instance is created is invalid.
409	InvalidOperation.ChildInstanceStatus	The child-instance is not in a valid state for the operation.	The error message returned because the operation is not allowed when the network instance is being processed. Try again later.
409	InvalidOperation.CenInstanceStatus	The CEN instance is not in a valid state for the operation.	The error message returned because the CEN instance is being processed. Try again later.
400	ParameterIllegal.ChildInstanceType	The parameter of child instance type is illegal.	The error message returned because the type of the network instance is invalid.

For a list of error codes, visit the API Error Center.

12.6. WithdrawPublishedRouteEntries

Withdraws the routes of a virtual private cloud (VPC) or virtual border router (VBR) that are advertised to a Cloud Enterprise Network (CEN) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	WithdrawPublishedRouteEntries	The operation that you want to perform. Set the value to **WithdrawPublishedRouteEntries**.
CenId	String	Yes	cen-sxjfjkjfkjfiein****	The ID of the CEN instance.
ChildInstanceId	String	Yes	vpc-rj9gt5nll27onu7****	The ID of the network instance attached to the CEN instance.
ChildInstanceRegionId	String	Yes	cn-hangzhou	The ID of the region where the network instance is deployed. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
ChildInstanceRouteTableId	String	Yes	vtb-bp174d1gje79u1g4t****	The ID of the route table configured on the network instance.
ChildInstanceType	String	Yes	VPC	The type of the network instance. Valid values: • **VPC** • **VBR**
DestinationCidrBlock	String	Yes	172.16.1.0/24	The destination CIDR block of the route that you want to withdraw.

Response parameters

Parameter	Type	Example	Description
RequestId	String	FBDB18D8-E91E-4978-8D6C-6E2E3EE10133	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=WithdrawPublishedRouteEntries
&CenId=cen-sxjfjkjfkjfiein****
&ChildInstanceId=vpc-rj9gt5nll27onu7****
&ChildInstanceRegionId=cn-hangzhou
&ChildInstanceRouteTableId=vtb-bp174d1gje79u1g4t****
&ChildInstanceType=VPC
&DestinationCidrBlock=172.16.1.0/24
&<Common request parameters>
```

Sample responses

`XML` format

```
<WithdrawPublishedRouteEntriesResponse>
      <RequestId>FBDB18D8-E91E-4978-8D6C-6E2E3EE101330</RequestId>
</WithdrawPublishedRouteEntriesResponse>
```

`JSON` format

```
{
    "RequestId": "FBDB18D8-E91E-4978-8D6C-6E2E3EE10133"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidOperation.UnsupportnexthopType	The specified next hop type is not supported by this operation.	The error message returned because the type of the next hop is invalid.
400	ParameterIllegal.CenInstanceId	The parameter of CEN instance id is illegal.	The error message returned because the ID of the CEN instance is invalid.
400	ParameterIllegal.ChildInstanceRegionId	The parameter of child instance region id is illegal.	The error message returned because the ID of the region where the network instance is created is invalid.
409	InvalidOperation.ChildInstanceStatus	The child-instance is not in a valid state for the operation.	The error message returned because the operation is not allowed when the network instance is being processed. Try again later.
409	InvalidOperation.CenInstanceStatus	The CEN instance is not in a valid state for the operation.	The error message returned because the CEN instance is being processed. Try again later.
400	ParameterIllegal.ChildInstanceType	The parameter of child instance type is illegal.	The error message returned because the type of the network instance is invalid.

For a list of error codes, visit the API Error Center.

12.7. CreateCenChildInstanceRouteEntryToAttachment

Add a route to an Enterprise Edition transit router.

Usage notes

- You can add routes only to virtual private clouds (VPCs) or virtual border routers (VBRs) that are connected to an Enterprise Edition transit router.
- By default, the next hop of the route is the **transit router connection**, which is the connection to the network instance. You cannot modify the next hop.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateCenChildInstanceRouteEntryToAttachment	The operation that you want to perform. Set the value to **CreateCenChildInstanceRouteEntryToAttachment**.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must make sure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether to perform a precheck to check information such as the permissions and instance status. Valid values: • **false**: performs a precheck. The route is added to the network instance after the request passes the precheck. This is the default value. • **true**: performs a precheck. The route is not added to the network instance. If you use this value, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails the precheck, an error message is returned. If the request passes the precheck, the `DryRunOperation` error code is returned. **Note** This parameter is not in use.
CenId	String	Yes	vpc-bp1n6cbxcszp55vxo****	The ID of the CEN instance.
TransitRouterAttachmentId	String	Yes	tr-attach-r1qhupkc19iadz****	The ID of the network instance connection.
RouteTableId	String	Yes	vrt-bp1msipdczo9lejup****	The ID of the route table configured on the network instance.
DestinationCidrBlock	String	Yes	10.0.0.0/24	The destination CIDR block of the route.

Response parameters

Parameter	Type	Example	Description
RequestId	String	A95A100B-3F3A-56F4-A5DE-19DB7E994807	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateCenChildInstanceRouteEntryToAttachment
&CenId=vpc-bp1n6cbxcszp55vxo****
&TransitRouterAttachmentId=tr-attach-r1qhupkc19iadz****
&RouteTableId=vrt-bp1msipdczo9lejup****
&DestinationCidrBlock=10.0.0.0/24
&Common request parameters
```

Sample responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<CreateCenChildInstanceRouteEntryToAttachmentResponse>
    <RequestId>A95A100B-3F3A-56F4-A5DE-19DB7E994807</RequestId>
</CreateCenChildInstanceRouteEntryToAttachmentResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "A95A100B-3F3A-56F4-A5DE-19DB7E994807"
}
```

Error codes

For a list of error codes, visit the API Error Center.

12.8. DeleteCenChildInstanceRouteEntryToAttachment

Deletes a route from an Enterprise Edition transit router.

Usage notes

You can delete routes only from virtual private clouds (VPCs) and virtual border routers (VBRs) whose next hop is an **Enterprise Edition transit router connection**, which is the connection to the network instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DeleteCenChildInstanceRouteEntryToAttachment	The operation that you want to perform. Set the value to **DeleteCenChildInstanceRouteEntryToAttachment**.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must make sure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether to perform a precheck to check information such as the permissions and instance status. Valid values: • **false**: performs a precheck. The route is deleted after the request passes the precheck. This is the default value. • **true**: performs a precheck. The route is not deleted. If you use this value, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails the precheck, an error message is returned. If the request passes the check, the system returns the ID of the request. **Note** This parameter is not in use.

Parameter	Type	Required	Example	Description
CenId	String	Yes	cen-wgcl0ik5o8jakq****	The ID of the CEN instance.
TransitRouterAttachmentId	String	Yes	tr-attach-r1qhupkc19iadz****	The ID of the network instance connection.
RouteTableId	String	Yes	vtb-bp1osd9opvegfpowc****	The ID of the route table configured on the network instance.
DestinationCidrBlock	String	Yes	10.0.1.0/24	The destination CIDR block of the route.

Response parameters

Parameter	Type	Example	Description
RequestId	String	250E717B-9823-5FD8-A1C6-5714234FB825	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DeleteCenChildInstanceRouteEntryToAttachment
&CenId=cen-wgcl0ik5o8jakq****
&TransitRouterAttachmentId=tr-attach-r1qhupkc19iadz****
&RouteTableId=vtb-bp1osd9opvegfpowc****
&DestinationCidrBlock=10.0.1.0/24
&Common request parameters
```

Sample responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DeleteCenChildInstanceRouteEntryToAttachmentResponse>
    <RequestId>250E717B-9823-5FD8-A1C6-5714234FB825</RequestId>
</DeleteCenChildInstanceRouteEntryToAttachmentResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "250E717B-9823-5FD8-A1C6-5714234FB825"
}
```

Error codes

For a list of error codes, visit the API Error Center.

12.9. CreateCenChildInstanceRouteEntryToCen

Adds a route entry to a network instance that is attached to a Cloud Enterprise Network (CEN) instance.

Limits

- By default, the CreateCenChildInstanceRouteEntryToCen operation is unavailable. To call this operation, submit a ticket.
- You cannot add a route entry to an Enterprise Edition transit router by calling the CreateCenChildInstanceRouteEntryToCen operation.
- By default, the next hop of the route entry is the regional gateway of the CEN instance. You cannot modify the next hop.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	CreateCenChildInstanceRouteEntryToCen	The operation that you want to perform. Set the value to **CreateCenChildInstanceRouteEntryToCen**.
CenId	String	Yes	cen-7febra5nqj7jjh****	The ID of the CEN instance.
ChildInstanceId	String	Yes	vpc-k1alm2jbuwibhxtx2****	The ID of the network instance.
ChildInstanceRegionId	String	Yes	ap-southeast-5	The ID of the region where the network instance is deployed. You can call the DescribeRegions operation to query the most recent region list.
ChildInstanceType	String	Yes	VPC	The type of the attached network instance. Valid values: • **VPC**: a virtual private cloud (VPC) • **VBR**: a virtual border router (VBR)
DestinationCidrBlock	String	Yes	192.168.22.0/24	The destination CIDR block of the route entry. Specify the value of this parameter in CIDR notation. Example: 192.168.10.0/24.
RouteTableId	String	Yes	vtb-k1aa8ulqs39f86op8****	The ID of the route table of the network instance.
ChildInstanceAliUid	Long	No	1787100000000000	The ID of the Alibaba Cloud account to which the network instance belongs. **Note** If the network instance belongs to another Alibaba Cloud account, this parameter is required.

Response parameters

Parameter	Type	Example	Description
RequestId	String	437ED236-BE47-5370-8695-15C58C7A8014	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateCenChildInstanceRouteEntryToCen
&CenId=cen-7febra5nqj7jjh****
&ChildInstanceId=vpc-k1alm2jbuwibhxtx2****
&ChildInstanceRegionId=ap-southeast-5
&ChildInstanceType=VPC
&DestinationCidrBlock=192.168.22.0/24
&RouteTableId=vtb-k1aa8ulqs39f86op8****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<CreateCenChildInstanceRouteEntryToCenResponse>
  <RequestId>437ED236-BE47-5370-8695-15C58C7A8014</RequestId>
</CreateCenChildInstanceRouteEntryToCenResponse>
```

`JSON` format

```
{
    "RequestId": "437ED236-BE47-5370-8695-15C58C7A8014"
}
```

Error codes

For a list of error codes, visit the API Error Center.

12.10. DeleteCenChildInstanceRouteEntryToCen

Deletes a route entry from a network instance that is attached to a Cloud Network Enterprise (CEN) instance.

Limits

- By default, the DeleteCenChildInstanceRouteEntryToCen operation is unavailable. To call this operation, submit a ticket.
- You cannot delete a route entry from an Enterprise Edition transit router by calling the DeleteCenChildInstanceRouteEntryToCen operation.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DeleteCenChildInstanceRouteEntryToCen	The operation that you want to perform. Set the value to **DeleteCenChildInstanceRouteEntryToCen**.
CenId	String	Yes	cen-7febra5nqj7jjh****	The ID of the CEN instance.
ChildInstanceId	String	Yes	vpc-k1alm2jbuwibhxtx2****	The ID of the network instance.
ChildInstanceRegionId	String	Yes	ap-southeast-5	The ID of the region where the network instance is deployed. You can call the DescribeRegions operation to query the most recent region list.
ChildInstanceType	String	Yes	VPC	The type of the attached network instance. Valid values: • **VPC**: a virtual private cloud (VPC) • **VBR**: a virtual border router (VBR)
DestinationCidrBlock	String	Yes	192.168.22.0/24	The destination CIDR block of the route entry. Specify the value of this parameter in CIDR notation. Example: 192.168.10.0/24.
RouteTableId	String	Yes	vtb-k1aa8ulqs39f86op8****	The ID of the route table of the network instance.

Parameter	Type	Required	Example	Description
ChildInstanceAliUid	Long	No	1787100000000000	The ID of the Alibaba Cloud account to which the network instance belongs. **Note** If the network instance belongs to another Alibaba Cloud account, this parameter is required.

Response parameters

Parameter	Type	Example	Description
RequestId	String	C05000A4-2FC5-5B2C-9527-954044DE2CF3	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DeleteCenChildInstanceRouteEntryToCen
&CenId=cen-7febra5nqj7jjh****
&ChildInstanceId=vpc-k1alm2jbuwibhxtx2****
&ChildInstanceRegionId=ap-southeast-5
&ChildInstanceType=VPC
&DestinationCidrBlock=192.168.22.0/24
&RouteTableId=vtb-k1aa8ulqs39f86op8****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DeleteCenChildInstanceRouteEntryToCenResponse>
  <RequestId>C05000A4-2FC5-5B2C-9527-954044DE2CF3</RequestId>
</DeleteCenChildInstanceRouteEntryToCenResponse>
```

`JSON` format

```
{
    "RequestId": "C05000A4-2FC5-5B2C-9527-954044DE2CF3"
}
```

Error codes

For a list of error codes, visit the API Error Center.

13.Route tables of transit routers

13.1. CreateTransitRouterRouteTable

Creates a custom route table for an Enterprise Edition transit router.

Limits

Only Enterprise Edition transit routers support custom route tables. For more information about the regions and zones that support Enterprise Edition transit routers, see Transit routers.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	CreateTransitRouterRouteTable	The operation that you want to perform. Set the value to **CreateTransitRouterRouteTable**.
TransitRouterId	String	Yes	tr-bp1su1ytdxtataupl****	The ID of the Enterprise Edition transit router.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must ensure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
TransitRouterRouteTableName	String	No	testname	The name of the custom route table. The name must be 1 to 128 characters in length, and can contain letters, digits, and the following special characters: , . ; / @ _ -. You can also leave the name empty.
TransitRouterRouteTableDescription	String	No	testdesc	The description of the custom route table. The description must be 2 to 256 characters in length, and can contain letters, digits, and the following special characters: , . ; / @ _ -. You can also leave the description empty.
DryRun	Boolean	No	false	Specifies whether to only precheck the request. Check items include permissions and the status of the specified instances. Valid values: • **false** (default): sends a normal request. If the request passes the precheck, the custom route table is created. • **true**: sends a request for precheck only. No custom route table is created after the request passes the precheck. If you select this option, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails to pass the precheck, the system returns an error. If the request passes the precheck, the system returns the ID of the request.

Response parameters

Parameter	Type	Example	Description
RequestId	String	599904C8-A3DA-4E5F-83B6-D5364E664247	The ID of the request.
TransitRouterRouteTableId	String	vtb-bp1xbcgpgcz9axl9m****	The ID of the custom route table.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateTransitRouterRouteTable
&TransitRouterId=tr-bp1su1ytdxtataupl****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<CreateTransitRouterRouteTableResponse>
  <TransitRouterRouteTableId>vtb-bp1xbcgpgcz9axl9m****</TransitRouterRouteTableId>
  <RequestId>599904C8-A3DA-4E5F-83B6-D5364E664247</RequestId>
</CreateTransitRouterRouteTableResponse>
```

`JSON` format

```
{
  "TransitRouterRouteTableId": "vtb-bp1xbcgpgcz9axl9m****",
  "RequestId": "599904C8-A3DA-4E5F-83B6-D5364E664247"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	DryRunOperation	Request validation has been passed with DryRun flag set.	The error message returned because the dry run request passes the precheck.

For a list of error codes, visit the API Error Center.

13.2. DeleteTransitRouterRouteTable

Deletes a custom route table of an Enterprise Edition transit router.

Limits

You cannot delete the default route table of an Enterprise Edition transit router.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DeleteTransitRouterRouteTable	The operation that you want to perform. Set the value to **DeleteTransitRouterRouteTable**.
TransitRouterRouteTableId	String	Yes	vtb-bp1xbcgpgcz9axl9m****	The ID of the custom route table.

Parameter	Type	Required	Example	Description
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must ensure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether to only precheck the request. Check items include permissions and the status of the transit router. Valid values: • **false** (default): sends a normal request. If the request passes the precheck, the custom route table is deleted. • **true**: sends a request for precheck only. The custom route table is not deleted after the request passes the precheck. If you select this option, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails to pass the precheck, the system returns an error. If the request passes the precheck, the system returns the ID of the request.

Response parameters

Parameter	Type	Example	Description
RequestId	String	EAB2F133-8556-4D7C-9E91-7EE4FE9CC7D2	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DeleteTransitRouterRouteTable
&TransitRouterRouteTableId=vtb-bp1xbcgpgcz9axl9m****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DeleteTransitRouterRouteTableResponse>
  <RequestId>EAB2F133-8556-4D7C-9E91-7EE4FE9CC7D2</RequestId>
</DeleteTransitRouterRouteTableResponse>
```

`JSON` format

```
{
  "RequestId": "EAB2F133-8556-4D7C-9E91-7EE4FE9CC7D2"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidTransitRouterRouteTableId.NotFound	TransitRouterRouteTableId is not found.	The error message returned because the specified custom route table ID is invalid.
400	DryRunOperation	Request validation has been passed with DryRun flag set.	The error message returned because the dry run request passes the precheck.
400	IncorrectStatus.TransitRouterRouteTable	TransitRouterRouteTable status is invalid.	The error message returned because the state of the transit router is invalid.

For a list of error codes, visit the API Error Center.

13.3. UpdateTransitRouterRouteTable

Modifies the name and description of a route table of an Enterprise Edition transit router.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	UpdateTransitRouterRouteTable	The operation that you want to perform. Set the value to **UpdateTransitRouterRouteTable**.
TransitRouterRouteTableId	String	Yes	vtb-bp1dudbh2d5na6b50****	The ID of the route table of the Enterprise Edition transit router.
TransitRouterRouteTableName	String	No	testname	The new name of the route table. The name must be 1 to 128 characters in length, and can contain letters, digits, and the following special characters: , . ; / @ _ -. You can also leave the name empty.
TransitRouterRouteTableDescription	String	No	testdesc	The new description of the route table. The description must be 2 to 256 characters in length, and can contain letters, digits, and the following special characters: , . ; / @ _ -. You can also leave the description empty.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must ensure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether to only precheck the request. Check items include permissions and the status of the specified instances. Valid values: • **false** (default): sends a normal request. If the request passes the precheck, the name and description of the route table are modified. • **true**: sends a request for precheck only. The name and description of the route table are not modified after the request passes the precheck. If you select this option, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails to pass the precheck, the system returns an error. If the request passes the precheck, the system returns the ID of the request.

Response parameters

Parameter	Type	Example	Description
RequestId	String	9D6D5548-F271-41C4-AA9F-A62F5599085B	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=UpdateTransitRouterRouteTable
&TransitRouterRouteTableId=vtb-bp1dudbh2d5na6b50****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<UpdateTransitRouterRouteTableResponse>
  <RequestId>9D6D5548-F271-41C4-AA9F-A62F5599085B</RequestId>
</UpdateTransitRouterRouteTableResponse>
```

`JSON` format

```
{
  "RequestId": "9D6D5548-F271-41C4-AA9F-A62F5599085B"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidTransitRouterRouteTableId.NotFound	TransitRouterRouteTableId is not found.	The error message returned because the specified route table ID is invalid.

For a list of error codes, visit the API Error Center.

13.4. ListTransitRouterRouteTables

Queries the route tables of an Enterprise Edition transit router.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ListTransitRouterRouteTables	The operation that you want to perform. Set the value to **ListTransitRouterRouteTables**.
TransitRouterId	String	Yes	tr-uf654ttymmljlvh2x****	The ID of the Enterprise Edition transit router.
MaxResults	Integer	No	1	The number of entries to return on each page. Valid values: **1** to **100**. Default value: **20**.
TransitRouterRouteTableNames.N	RepeatList	No	testname	The name of the route table. You can query multiple route tables in each call. Maximum value of **N**: **20**. **Note** If you specify both **TransitRouterRouteTableNames.N** and **TransitRouterRouteTableIds.N**, make sure that the specified name and ID belong to the same route table.
TransitRouterRouteTableIds.N	RepeatList	No	vtb-bp1l8awdb4iuo9uwu****	The ID of the route table. You can query multiple route tables in each call. Maximum value of **N**: **20**.

Parameter	Type	Required	Example	Description
NextToken	String	No	dd20****	The token for returning the next page when the data is returned in more than one page.
TransitRouterRouteTableType	String	No	Custom	The type of route table. Valid values: • **Custom**: a custom route table • **System**: the default route table
TransitRouterRouteTableStatus	String	No	Active	The state of the route table. Valid values: • **Creating**: The route table is being created. • **Deleting**: The route table is being deleted. • **Active**: The route table is available for use.

Response parameters

Parameter	Type	Example	Description
MaxResults	Integer	1	The number of entries returned per page.
NextToken	String	dd20****	The token for returning the next page when the data is returned in more than one page.
RequestId	String	82678F4A-C9F7-4CC1-8BF0-D619A63BFC57	The ID of the request.
TotalCount	Integer	1	The total number of entries returned.
TransitRouterRouteTables	Array of TransitRouterRouteTable		The list of route tables.
CreateTime	String	2021-03-15T09:39Z	The time when the route table was created. The time follows the ISO 8601 standard in the yyyy-MM-ddThh:mm:ssZ format. The time is displayed in UTC.
TransitRouterRouteTableDescription	String	testb	The description of the route table.
TransitRouterRouteTableId	String	vtb-bp1dudbh2d5na6b50****	The ID of the route table.
TransitRouterRouteTableName	String	testa	The name of the route table.
TransitRouterRouteTableStatus	String	Active	The state of the route table. Valid values: • **Creating**: The route table is being created. • **Deleting**: The route table is being deleted. • **Active**: The route table is available for use.
TransitRouterRouteTableType	String	System	The type of route table. Valid values: • **Custom**: a custom route table • **System**: the default route table

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ListTransitRouterRouteTables
&TransitRouterId=tr-uf654ttymmljlvh2x****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ListTransitRouterRouteTablesTableResponse>
  <TotalCount>2</TotalCount>
  <RequestId>2C89B67C-8EC6-46AF-9B2B-72A836A28F64</RequestId>
  <NextToken>dd20****</NextToken>
  <TransitRouterRouteTables>
        <TransitRouterRouteTableId>vtb-bp1dudbh2d5na6b50****</TransitRouterRouteTableId>
        <TransitRouterRouteTableStatus>Active</TransitRouterRouteTableStatus>
        <TransitRouterRouteTableType>System</TransitRouterRouteTableType>
        <TransitRouterRouteTableDescription>testb</TransitRouterRouteTableDescription>
        <CreateTime>2021-03-15T09:39Z</CreateTime>
        <TransitRouterRouteTableName>testa</TransitRouterRouteTableName>
  </TransitRouterRouteTables>
  <MaxResults>1</MaxResults>
</ListTransitRouterRouteTablesTableResponse>
```

`JSON` format

```
{
  "TotalCount": 2,
  "RequestId": "2C89B67C-8EC6-46AF-9B2B-72A836A28F64",
  "NextToken": "dd20****",
  "TransitRouterRouteTables": [
    {
      "TransitRouterRouteTableId": "vtb-bp1dudbh2d5na6b50****",
      "TransitRouterRouteTableStatus": "Active",
      "TransitRouterRouteTableType": "System",
      "TransitRouterRouteTableDescription": "testb",
      "CreateTime": "2021-03-15T09:39Z",
      "TransitRouterRouteTableName": "testa"
    }
  ],
  "MaxResults": 1
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidTransitRouterId.NotFound	TransitRouterId is not found.	The error message returned because the ID of the transit router is invalid.

For a list of error codes, visit the API Error Center.

14.Routes of transit routers

14.1. CreateTransitRouterRouteEntry

Adds a route entry to a route table of an Enterprise Edition transit router.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	CreateTransitRouterRouteEntry	The operation that you want to perform. Set the value to **CreateTransitRouterRouteEntry**.
TransitRouterRouteEntryDestinationCidrBlock	String	Yes	192.168.0.0/24	The destination CIDR block of the route entry.
TransitRouterRouteEntryNextHopType	String	Yes	BlackHole	The type of next hop. Valid values: • **BlackHole**: routes network traffic to a black hole. All packets that match this route are dropped. If you select this option, you do not need to specify the next hop information. • **Attachment**: routes network traffic to a network instance connection. If you select this option, you must specify the ID of the network instance connection. All packets that match this route are routed to the specified network instance connection.
TransitRouterRouteTableId	String	Yes	vtb-bp1dudbh2d5na6b50****	The ID of the route table of the Enterprise Edition transit router.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must make sure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
TransitRouterRouteEntryName	String	No	testname	The name of the route entry. The name must be 1 to 128 characters in length, and can contain letters, digits, and the following special characters: , . ; / @ _ -. You can also leave the name empty.
TransitRouterRouteEntryDescription	String	No	testdesc	The description of the route entry. The description must be 2 to 256 characters in length, and can contain letters, digits, and the following special characters: , . ; / @ _ -. You can also leave the description empty.
TransitRouterRouteEntryNextHopId	String	No	tr-attach-nls9fzkfat8934****	The ID of the network instance connection that you want to specify as the next hop.

Parameter	Type	Required	Example	Description
DryRun	Boolean	No	false	Specifies whether to precheck the request. Check items include permissions and the status of the specified instances. Valid values: • **false** (default): sends the request. If the request passes the precheck, the route entry is added. • **true**: sends a precheck request. The route entry is not added after the request passes the precheck. If you select this option, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails to pass the precheck, the system returns an error. If the request passes the precheck, the system returns the ID of the request.

Response parameters

Parameter	Type	Example	Description
RequestId	String	835E7F4B-B380-4E0F-96A5-6EA572388047	The ID of the request.
TransitRouterRouteEntryId	String	rte-75eg4jprkvk0pw****	The ID of the route entry.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateTransitRouterRouteEntry
&TransitRouterRouteEntryDestinationCidrBlock=192.168.0.0/24
&TransitRouterRouteEntryNextHopType=BlackHole
&TransitRouterRouteTableId=vtb-bp1dudbh2d5na6b50****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<CreateTransitRouterRouteEntryResponse>
  <RequestId>835E7F4B-B380-4E0F-96A5-6EA572388047</RequestId>
  <TransitRouterRouteEntryId>rte-75eg4jprkvk0pw****</TransitRouterRouteEntryId>
</CreateTransitRouterRouteEntryResponse>
```

`JSON` format

```
{
  "RequestId": "835E7F4B-B380-4E0F-96A5-6EA572388047",
  "TransitRouterRouteEntryId": "rte-75eg4jprkvk0pw****"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	DryRunOperation	Request validation has been passed with DryRun flag set.	The error message returned because the dry run request passes the precheck.
400	InvalidTransitRouterRouteTableId.NotFound	TransitRouterRouteTableId is not found.	The error message returned because the specified route table ID of the transit router does not exist.
400	TransitRouterRouteEntryNextHopId.NotFound	TransitRouterRouteEntryNextHopId is not found.	The error message returned because the specified next hop ID of the transit router does not exist.

HttpCode	Error code	Error message	Description
400	InstanceExist.TransitRouterRouteEntry	The instance TransitRouterRouteEntry already exists.	The error message returned because the route entry that you want to add already exists.
400	IncorrectStatus.TransitRouterRouteTable	TransitRouterRouteTable status is invalid.	The error message returned because the transit router is in an invalid state.

For a list of error codes, visit the API Error Center.

14.2. UpdateTransitRouterRouteEntry

Modifies the name and description of a route in the route table of an Enterprise Edition transit router.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	UpdateTransitRouterRouteEntry	The operation that you want to perform. Set the value to **UpdateTransitRouterRouteEntry**.
TransitRouterRouteEntryId	String	Yes	rte-ksssq7kto4wfdx****	The ID of the route.
TransitRouterRouteEntryName	String	No	testname	The new name of the route. The name must be 1 to 128 characters in length, and can contain letters, digits, and the following special characters: , . ; / @ _ -. You can also leave the name empty.
TransitRouterRouteEntryDescription	String	No	testdesc	The new description of the route. The description must be 2 to 256 characters in length, and can contain letters, digits, and the following special characters: , . ; / @ _ -. You can also leave the description empty.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must ensure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether to only precheck the request. Check items include permissions and the status of the transit router. Valid values: • **false** (default): sends a normal request. If the request passes the precheck, the name and description of the route are modified. • **true**: sends a request for precheck only. The name and description of the transit router are not modified after the request passes the precheck. If you select this option, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails to pass the precheck, the system returns an error. If the request passes the precheck, the system returns the ID of the request.

Response parameters

Parameter	Type	Example	Description
RequestId	String	2D69CCEA-42D0-48B2-8C9A-9BB207F76D6E	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=UpdateTransitRouterRouteEntry
&TransitRouterRouteEntryId=rte-ksssq7kto4wfdx****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<UpdateTransitRouterRouteEntryResponse>
  <RequestId>2D69CCEA-42D0-48B2-8C9A-9BB207F76D6E</RequestId>
</UpdateTransitRouterRouteEntryResponse>
```

`JSON` format

```
{
  "RequestId": "2D69CCEA-42D0-48B2-8C9A-9BB207F76D6E"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	DryRunOperation	Request validation has been passed with DryRun flag set.	The error message returned because the dry run request passes the precheck.

For a list of error codes, visit the API Error Center.

14.3. DeleteTransitRouterRouteEntry

Deletes a static route for an Enterprise Edition transit router.

Description

Before you call this operation, take note of the following items:

- If **TransitRouterRouteEntryId** is set, you must not specify **TransitRouterRouteTableId** or **TransitRouterRouteEntryDestinationCidrBlock**. Otherwise, parameter conflicts will occur.
- If **TransitRouterRouteEntryId** is not set, you must specify the following parameters based on the type of the next hop:
  - To delete a black hole route, you must specify **TransitRouterRouteTableId**, **TransitRouterRouteEntryDestinationCidrBlock**, and **TransitRouterRouteEntryNextHopType**.
  - If the route that you want to delete is not a black hole route, you must specify **TransitRouterRouteTableId**, **TransitRouterRouteEntryDestinationCidrBlock**, **TransitRouterRouteEntryNextHopType**, and **TransitRouterRouteEntryNextHopId**.

Limits

You can call this operation to delete only static routes. Automatically learned routes are not supported. You can call the ListTransitRouterRouteEntries operation to query route types.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DeleteTransitRouterRouteEntry	The operation that you want to perform. Set the value to **DeleteTransitRouterRouteEntry**.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must ensure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether to only precheck the request. Check items include permissions and the status of the specified instances. Valid values: • **false** (default): sends a normal request. If the request passes the precheck, the route is deleted. • **true**: sends a request for precheck only. The route is not deleted after the request passes the precheck. If you select this option, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails to pass the precheck, the system returns an error. If the request passes the precheck, the system returns the ID of the request.
TransitRouterRouteEntryId	String	No	rte-75eg4jprkvk0pw****	The ID of the route.
TransitRouterRouteEntryNextHopType	String	No	BlackHole	The type of next hop. Valid values: Valid values: • **BlackHole**: a null interface. You do not need to specify the next hop. • **Attachment**: a network instance connection. You must specify a network instance connection as the next hop.
TransitRouterRouteEntryDestinationCidrBlock	String	No	192.168.0.0/24	The destination CIDR block.
TransitRouterRouteEntryNextHopId	String	No	tr-attach-nls9fzkfat8934****	The ID of the network instance connection that you want to specify as the next hop.
TransitRouterRouteTableId	String	No	vtb-bp1dudbh2d5na6b50****	The route table ID of the Enterprise Edition transit router.

Response parameters

Parameter	Type	Example	Description
RequestId	String	2D69CCEA-42D0-48B2-8C9A-9BB207F76D6E	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DeleteTransitRouterRouteEntry
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DeleteTransitRouterRouteEntryResponse>
  <RequestId>2D69CCEA-42D0-48B2-8C9A-9BB207F76D6E</RequestId>
</DeleteTransitRouterRouteEntryResponse>
```

`JSON` format

```
{
  "RequestId": "2D69CCEA-42D0-48B2-8C9A-9BB207F76D6E"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	DryRunOperation	Request validation has been passed with DryRun flag set.	The error message returned because the dry run request passes the precheck.

For a list of error codes, visit the API Error Center.

14.4. ListTransitRouterRouteEntries

Queries the route entries in a route table of an Enterprise Edition transit router.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ListTransitRouterRouteEntries	The operation that you want to perform. Set the value to **ListTransitRouterRouteEntries**.
TransitRouterRouteTableId	String	Yes	vtb-bp1dudbh2d5na6b50****	The ID of the route table of the Enterprise Edition transit router.
MaxResults	Integer	No	4	The number of entries to return on each page. Valid values: **1** to **100**. Default value: **20**.
TransitRouterRouteEntryDestinationCidrBlock	String	No	192.168.0.0/24	The destination CIDR block of the route entry.
TransitRouterRouteEntryStatus	String	No	Active	The status of the route entry. Valid values: Valid values: • **Creating**: The route entry is being created. • **Active**: The route entry is active. • **Deleting**: The route entry is being deleted.
TransitRouterRouteEntryNames.N	RepeatList	No	testname	The name of the route entry. The name must be 1 to 128 characters in length, and can contain letters, digits, and the following special characters: , . ; / @ _ -. You can also leave the name empty. You can query multiple route entries in each call. Maximum value of **N**: **20**. **Note** You can call this operation to query only static routes.

Parameter	Type	Required	Example	Description
TransitRouterRouteEntryIds.N	RepeatList	No	rte-oklkgwmj97z6dn****	The ID of the route entry. You can query multiple route entries in each call. Maximum value of **N**: **20**. **Note** You can call this operation to query only static routes.
NextToken	String	No	fce19****	The token for returning the next page when the data is returned in more than one page.

Response parameters

Parameter	Type	Example	Description
MaxResults	Integer	4	The number of entries returned per page.
NextToken	String	fce19****	The token for returning the next page when the data is returned in more than one page.
RequestId	String	C3835E5E-1504-4344-B1BB-98A4110F1079	The ID of the request.
TotalCount	Integer	6	The total number of entries returned.
TransitRouterRouteEntries	Array of TransitRouterRouteEntry		The list of route entries.
CreateTime	String	2021-06-15T07:01Z	The time when the route entry was created. The time follows the ISO 8601 standard in the yyyy-MM-ddThh:mm:ssZ format. The time is displayed in UTC. **Note** This parameter is returned only for static routes.
TransitRouterRouteEntryDescription	String	testdesc	The description of the route entry. **Note** This parameter is returned only for static routes.
TransitRouterRouteEntryDestinationCidrBlock	String	172.16.0.0/16	The destination CIDR block of the route entry.
TransitRouterRouteEntryId	String	rte-oklkgwmj97z6dn****	The ID of the route entry. **Note** This parameter is returned only for static routes.
TransitRouterRouteEntryName	String	test	The name of the route entry. **Note** This parameter is returned only for static routes.

Parameter	Type	Example	Description
TransitRouterRouteEntryNextHopId	String	tr-attach-vx6iwhjr1x1j78****	The ID of the next hop.
TransitRouterRouteEntryNextHopType	String	BlackHole	The type of next hop. Valid values: • **BlackHole**: a null interface. Packets destined for the destination CIDR block of the route entry are dropped. • **Attachment**: a network instance connection. Packets destined for the destination CIDR block of the route entry are forwarded to the specified network instance connection.
TransitRouterRouteEntryStatus	String	Active	The status of the route entry. Valid values: • **Creating**: The route entry is being created. • **Active**: The route entry is active. • **Deleting**: The route entry is being deleted.
TransitRouterRouteEntryType	String	Propagated	The type of route entry. Valid values: • **Static**: a static route • **Propagated**: an automatically learned route

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ListTransitRouterRouteEntries
&TransitRouterRouteTableId=vtb-bp1dudbh2d5na6b50****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ListTransitRouterRouteEntriesResponse>
  <TotalCount>6</TotalCount>
  <NextToken>fce19****</NextToken>
  <RequestId>C3835E5E-1504-4344-B1BB-98A4110F1079</RequestId>
  <MaxResults>4</MaxResults>
  <TransitRouterRouteEntries>
        <TransitRouterRouteEntryDestinationCidrBlock>10.0.1.0/24</TransitRouterRouteEntryDestinationCidrBlock>
        <TransitRouterRouteEntryNextHopId>tr-attach-vx6iwhjr1x1j78****</TransitRouterRouteEntryNextHopId>
        <TransitRouterRouteEntryType>Propagated</TransitRouterRouteEntryType>
        <TransitRouterRouteEntryNextHopType>Attachment</TransitRouterRouteEntryNextHopType>
        <TransitRouterRouteEntryStatus>Active</TransitRouterRouteEntryStatus>
  </TransitRouterRouteEntries>
  <TransitRouterRouteEntries>
        <TransitRouterRouteEntryDestinationCidrBlock>10.0.137.40/29</TransitRouterRouteEntryDestinationCidrBlock>
        <TransitRouterRouteEntryNextHopId>tr-attach-vx6iwhjr1x1j78****</TransitRouterRouteEntryNextHopId>
        <TransitRouterRouteEntryType>Propagated</TransitRouterRouteEntryType>
        <TransitRouterRouteEntryNextHopType>Attachment</TransitRouterRouteEntryNextHopType>
        <TransitRouterRouteEntryStatus>Active</TransitRouterRouteEntryStatus>
  </TransitRouterRouteEntries>
  <TransitRouterRouteEntries>
        <TransitRouterRouteEntryDestinationCidrBlock>10.0.2.0/24</TransitRouterRouteEntryDestinationCidrBlock>
        <TransitRouterRouteEntryNextHopId>tr-attach-vx6iwhjr1x1j78****</TransitRouterRouteEntryNextHopId>
        <TransitRouterRouteEntryType>Propagated</TransitRouterRouteEntryType>
        <TransitRouterRouteEntryNextHopType>Attachment</TransitRouterRouteEntryNextHopType>
        <TransitRouterRouteEntryStatus>Active</TransitRouterRouteEntryStatus>
  </TransitRouterRouteEntries>
  <TransitRouterRouteEntries>
        <TransitRouterRouteEntryDestinationCidrBlock>172.16.0.0/16</TransitRouterRouteEntryDestinationCidrBlock>
        <TransitRouterRouteEntryNextHopId></TransitRouterRouteEntryNextHopId>
        <TransitRouterRouteEntryType>Static</TransitRouterRouteEntryType>
        <CreateTime>2021-06-15T07:01Z</CreateTime>
        <TransitRouterRouteEntryNextHopType>BlackHole</TransitRouterRouteEntryNextHopType>
        <TransitRouterRouteEntryName>test</TransitRouterRouteEntryName>
        <TransitRouterRouteEntryId>rte-oklkgwmj97z6dn****</TransitRouterRouteEntryId>
        <TransitRouterRouteEntryStatus>Active</TransitRouterRouteEntryStatus>
  </TransitRouterRouteEntries>
</ListTransitRouterRouteEntriesResponse>
```

`JSON` format

```
{
  "TotalCount": 6,
  "NextToken": "fce19****",
  "RequestId": "C3835E5E-1504-4344-B1BB-98A4110F1079",
  "MaxResults": 4,
  "TransitRouterRouteEntries": [
    {
      "TransitRouterRouteEntryDestinationCidrBlock": "10.0.1.0/24",
      "TransitRouterRouteEntryNextHopId": "tr-attach-vx6iwhjr1x1j78****",
      "TransitRouterRouteEntryType": "Propagated",
      "TransitRouterRouteEntryNextHopType": "Attachment",
      "TransitRouterRouteEntryStatus": "Active"
    },
    {
      "TransitRouterRouteEntryDestinationCidrBlock": "10.0.137.40/29",
      "TransitRouterRouteEntryNextHopId": "tr-attach-vx6iwhjr1x1j78****",
      "TransitRouterRouteEntryType": "Propagated",
      "TransitRouterRouteEntryNextHopType": "Attachment",
      "TransitRouterRouteEntryStatus": "Active"
    },
    {
      "TransitRouterRouteEntryDestinationCidrBlock": "10.0.2.0/24",
      "TransitRouterRouteEntryNextHopId": "tr-attach-vx6iwhjr1x1j78****",
      "TransitRouterRouteEntryType": "Propagated",
      "TransitRouterRouteEntryNextHopType": "Attachment",
      "TransitRouterRouteEntryStatus": "Active"
    },
    {
      "TransitRouterRouteEntryDestinationCidrBlock": "172.16.0.0/16",
      "TransitRouterRouteEntryNextHopId": "",
      "TransitRouterRouteEntryType": "Static",
      "CreateTime": "2021-06-15T07:01Z",
      "TransitRouterRouteEntryNextHopType": "BlackHole",
      "TransitRouterRouteEntryName": "test",
      "TransitRouterRouteEntryId": "rte-oklkgwmj97z6dn****",
      "TransitRouterRouteEntryStatus": "Active"
    }
  ]
}
```


Error codes

HttpCode	Error code	Error message	Description
400	InvalidTransitRouterRouteTableId.NotFound	TransitRouterRouteTableId is not found.	The error message returned because the specified route table ID of the transit router does not exist.

For a list of error codes, visit the API Error Center.

15.Associated forwarding correlations

15.1. AssociateTransitRouterAttachmentWithRouteTable

Creates an associated forwarding correlation.

Description

After you establish a network instance connection, you can create an associated forwarding correlation to associate the network instance connection with a route table. Then, the network instance connection can forward network traffic based on the associated route table.

Limits

Only Enterprise Edition transit routers support associated forwarding correlations. For more information about the regions and zones that support Enterprise Edition transit routers, see Transit routers.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	AssociateTransitRouterAttachmentWithRouteTable	The operation that you want to perform. Set the value to **AssociateTransitRouterAttachmentWithRouteTable**.
TransitRouterAttachmentId	String	Yes	tr-attach-nls9fzkfat8934****	The ID of the network instance connection.
TransitRouterRouteTableId	String	Yes	vtb-bp1dudbh2d5na6b50****	The ID of the route table of the Enterprise Edition transit router.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must ensure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether to only precheck the request. Check items include permissions and the status of the transit router. Valid values: • **false** (default): sends a normal request. If the request passes the precheck, the associated forwarding correlation is created. • **true**: sends a request for precheck only. The associated forwarding correlation is not created after the request passes the precheck. If you select this option, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails to pass the precheck, the system returns an error. If the request passes the precheck, the system returns the ID of the request.

Response parameters

Parameter	Type	Example	Description
RequestId	String	4EC47282-1B74-4534-BD0E-403F3EE64CAF	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=AssociateTransitRouterAttachmentWithRouteTable
&TransitRouterAttachmentId=tr-attach-nls9fzkfat8934****
&TransitRouterRouteTableId=vtb-bp1dudbh2d5na6b50****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<AssociateTransitRouterAttachmentWithRouteTableResponse>
  <RequestId>4EC47282-1B74-4534-BD0E-403F3EE64CAF</RequestId>
</AssociateTransitRouterAttachmentWithRouteTableResponse>
```

`JSON` format

```
{
    "RequestId":"4EC47282-1B74-4534-BD0E-403F3EE64CAF"
    }
```

Error codes

HttpCode	Error code	Error message	Description
400	AssociationExist.TransitRouterTable	The specified association already exists.	The error message returned because the specified route table is already associated with an associated forwarding correlation.
404	InvalidRouteTableId.NotFound	The specified RouteTableId is not found.	The error message returned because the specified route table ID does not exist.
404	InvalidAttachmentId.NotFound	The specified AttachmentId is not found.	The error message returned because the specified network instance connection ID does not exist.

For a list of error codes, visit the API Error Center.

15.2. ReplaceTransitRouterRouteTableAssociation

Associates a network instance connection with another route table that belongs to a transit router.

Usage notes

The network instance connection that you want to associate with another route table must be created on an Enterprise Edition transit router.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ReplaceTransitRouterRouteTableAssociation	The operation that you want to perform. Set the value to **ReplaceTransitRouterRouteTableAssociation**.

Parameter	Type	Required	Example	Description
ClientToken	String	No	123e4567-e89b-12d3-a456-426655****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must make sure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether to only precheck the request. Valid values: • **true**: prechecks the request but does not associate the network instance connection with another route table. The system checks whether the required parameters are set, whether the formats of the values are valid, and the service limits. If the request fails the precheck, an error message is returned. If the request passes the precheck, the `DryRunOperation` error code is returned. • **false**: does not precheck the request. After the request passes the authentication, the network instance is associated with another route table. This is the default value.
TransitRouterAttachmentId	String	Yes	tr-attach-071g5j5tefg4x6****	The ID of the network instance connection.
TransitRouterRouteTableId	String	Yes	vtb-bp1cprmc6xmzjd66i****	The ID of the route table with which you want to associate the network instance connection.

Response parameters

Parameter	Type	Example	Description
RequestId	String	160BD7D3-3D1E-5702-9AF0-56E4B15FCB65	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ReplaceTransitRouterRouteTableAssociation
&DryRun=false
&TransitRouterAttachmentId=tr-attach-071g5j5tefg4x6****
&TransitRouterRouteTableId=vtb-bp1cprmc6xmzjd66i****
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<ReplaceTransitRouterRouteTableAssociationResponse>
    <RequestId>160BD7D3-3D1E-5702-9AF0-56E4B15FCB65</RequestId>
</ReplaceTransitRouterRouteTableAssociationResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "160BD7D3-3D1E-5702-9AF0-56E4B15FCB65"
}
```

Error codes

For a list of error codes, visit the API Error Center.

15.3. ListTransitRouterRouteTableAssociations

Queries the associated forwarding correlations of a route table of an Enterprise Edition transit router.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ListTransitRouterRouteTableAssociations	The operation that you want to perform. Set the value to **ListTransitRouterRouteTableAssociations**.
TransitRouterRouteTableId	String	Yes	vtb-bp1dudbh2d5na6b50****	The ID of the route table of the Enterprise Edition transit router.
MaxResults	Integer	No	1	The number of entries to return on each page. Default value: **50**.
NextToken	String	No	a415****	The token for returning the next page when the data is returned in more than one page.
TransitRouterAttachmentId	String	No	tr-attach-nls9fzkfat8934****	The ID of the network instance connection.

Response parameters

Parameter	Type	Example	Description
MaxResults	Integer	1	The number of entries returned per page.
NextToken	String	a415****	The token for returning the next page when the data is returned in more than one page.
RequestId	String	F6B1D9AB-176D-4399-801D-8BC576F4EB0D	The ID of the request.
TotalCount	Integer	2	The total number of entries returned.
TransitRouterAssociations	Array of TransitRouterAssociation		The list of associated forwarding correlations.
ResourceId	String	vpc-bp1h8vbrbcgohcju5****	The ID of the next hop.
ResourceType	String	VPC	The type of next hop. Valid values: • **VPC**: a virtual private cloud (VPC) • **CCN**: a Cloud Connect Network (CCN) instance • **VBR**: a virtual border router (VBR) • **TR**: a transit router

Parameter	Type	Example	Description
Status	String	Associating	The state of the associated forwarding correlation. Valid values: • **Active**: The route table is associated with the network instance connection. • **Associating**: The route table is being associated with the network instance connection. • **Dissociating**: The route table is being disassociated from the network instance connection. • **Deleted**: The route table is disassociated from the network instance connection.
TransitRouterAttachmentId	String	tr-attach-nls9fzkfat8934****	The ID of the network instance connection.
TransitRouterRouteTableId	String	vtb-bp1dudbh2d5na6b50****	The ID of the route table of the Enterprise Edition transit router.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ListTransitRouterRouteTableAssociations
&TransitRouterAttachmentId=tr-attach-nls9fzkfat8934****
&TransitRouterRouteTableId=vtb-bp1dudbh2d5na6b50****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ListTransitRouterRouteTableAssociationsResponse>
  <TotalCount>2</TotalCount>
  <RequestId>F6B1D9AB-176D-4399-801D-8BC576F4EB0D</RequestId>
  <NextToken>a415****</NextToken>
  <MaxResults>1</MaxResults>
  <TransitRouterAssociations>
        <Status>Associating</Status>
        <TransitRouterAttachmentId>tr-attach-nls9fzkfat8934****</TransitRouterAttachmentId>
        <TransitRouterRouteTableId>vtb-bp1dudbh2d5na6b50****</TransitRouterRouteTableId>
        <ResourceId>vpc-bp1h8vbrbcgohcju5****</ResourceId>
        <ResourceType>VPC</ResourceType>
  </TransitRouterAssociations>
</ListTransitRouterRouteTableAssociationsResponse>
```

`JSON` format

```
{
  "TotalCount": 2,
  "RequestId": "F6B1D9AB-176D-4399-801D-8BC576F4EB0D",
  "NextToken": "a415****",
  "MaxResults": 1,
  "TransitRouterAssociations": [
    {
      "Status": "Associating",
      "TransitRouterAttachmentId": "tr-attach-nls9fzkfat8934****",
      "TransitRouterRouteTableId": "vtb-bp1dudbh2d5na6b50****",
      "ResourceId": "vpc-bp1h8vbrbcgohcju5****",
      "ResourceType": "VPC"
    }
  ]
}
```

Error codes

HttpCode	Error code	Error message	Description
400	IllegalParam.NextToken	The parameter NextToken is invalid.	The error message returned because the specified value of the NextToken parameter is invalid. Check the limits and change the value accordingly.

For a list of error codes, visit the API Error Center.

15.4. DissociateTransitRouterAttachmentFromRouteTable

Deletes an associated forwarding correlation.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DissociateTransitRouterAttachmentFromRouteTable	The operation that you want to perform. Set the value to **DissociateTransitRouterAttachmentFromRouteTable**.
TransitRouterAttachmentId	String	Yes	tr-attach-nls9fzkfat8934****	The ID of the network instance connection.
TransitRouterRouteTableId	String	Yes	vtb-bp1dudbh2d5na6b50****	The ID of the route table of the Enterprise Edition transit router.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must ensure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether to only precheck the request. Check items include permissions and the status of the specified instances. Valid values: • **false** (default): sends a normal request. If the request passes the precheck, the associated forwarding correlation is deleted. • **true**: sends a request for precheck only. The associated forwarding correlation is not deleted after the request passes the precheck. If you select this option, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails to pass the precheck, the system returns an error. If the request passes the precheck, the system returns the ID of the request.

Response parameters

Parameter	Type	Example	Description
RequestId	String	4EC47282-1B74-4534-BD0E-403F3EE64CAF	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DissociateTransitRouterAttachmentFromRouteTable
&TransitRouterAttachmentId=tr-attach-nls9fzkfat8934****
&TransitRouterRouteTableId=vtb-bp1dudbh2d5na6b50****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DissociateTransitRouterAttachmentFromRouteTableResponse>
  <RequestId>4EC47282-1B74-4534-BD0E-403F3EE64CAF</RequestId>
</DissociateTransitRouterAttachmentFromRouteTableResponse>
```

`JSON` format

```
{
    "RequestId":"4EC47282-1B74-4534-BD0E-403F3EE64CAF"
    }
```

Error codes

For a list of error codes, visit the API Error Center.

16.Route learning correlations

16.1. EnableTransitRouterRouteTablePropagation

Creates a route learning correlation.

Description

After you establish a network instance connection on a transit router, you can create a route learning correlation for the network instance connection. Then, the routes of the connected network instance are automatically advertised to the route table of the transit router.

Limits

You can create route learning correlations only on Enterprise Edition transit routers. For more information about the regions and zones that support Enterprise Edition transit routers, see Transit routers.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	EnableTransitRouterRouteTablePropagation	The operation that you want to perform. Set the value to **EnableTransitRouterRouteTablePropagation**.
TransitRouterAttachmentId	String	Yes	tr-attach-nls9fzkfat8934****	The ID of the network instance connection.
TransitRouterRouteTableId	String	Yes	vtb-bp1dudbh2d5na6b50****	The ID of the route table that belongs to the Enterprise Edition transit router.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must make sure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether to only precheck the request. Check items include permissions and the status of the transit router. Valid values: • **false** (default): sends a normal request. If the request passes the precheck, a route learning correlation is created. • **true**: sends a request for precheck only. No route learning correlation is created after the request passes the precheck. If you select this option, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails to pass the precheck, the system returns an error. If the request passes the precheck, the system returns the ID of the request.

Response parameters

Parameter	Type	Example	Description
RequestId	String	59CF8BF9-DE61-421E-B903-D56AF46A303C	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=EnableTransitRouterRouteTablePropagation
&TransitRouterAttachmentId=tr-attach-nls9fzkfat8934****
&TransitRouterRouteTableId=vtb-bp1dudbh2d5na6b50****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<EnableTransitRouterRouteTablePropagationResponse>
  <RequestId>59CF8BF9-DE61-421E-B903-D56AF46A303C</RequestId>
</EnableTransitRouterRouteTablePropagationResponse>
```

`JSON` format

```
{
  "RequestId": "59CF8BF9-DE61-421E-B903-D56AF46A303C"
}
```

Error codes

HttpCode	Error code	Error message	Description
404	InvalidRouteTableId.NotFound	The specified RouteTableId is not found.	The error message returned because the specified route table ID does not exist.
404	InvalidAttachmentId.NotFound	The specified AttachmentId is not found.	The error message returned because the specified AttachmentId does not exist.

For a list of error codes, visit the API Error Center.

16.2. ListTransitRouterRouteTablePropagations

Queries route learning correlations of an Enterprise Edition transit router.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ListTransitRouterRouteTablePropagations	The operation that you want to perform. Set the value to **ListTransitRouterRouteTablePropagations**.
TransitRouterRouteTableId	String	Yes	vtb-bp1dudbh2d5na6b50****	The ID of the route table of the Enterprise Edition transit router.
MaxResults	Integer	No	50	The number of entries to return on each page. Default value: **50**.
NextToken	String	No	dd20****	The token for returning the next page when the data is returned in more than one page.
TransitRouterAttachmentId	String	No	tr-attach-vx6iwhjr1x1j78****	The ID of the network instance connection.

Response parameters

Parameter	Type	Example	Description
MaxResults	Integer	50	The number of entries returned per page.
NextToken	String	dd20****	The token for returning the next page when the data is returned in more than one page.
RequestId	String	04C81E0D-945E-4D61-A561-3DEA322F243B	The ID of the request.
TotalCount	Integer	2	The total number of entries returned.
TransitRouterPropagations	Array of TransitRouterPropagation		The list of route learning correlations.
ResourceId	String	vpc-bp1h8vbrbcgohcju5****	The ID of the next hop.
ResourceType	String	VPC	The type of next hop. Valid values: • **VPC**: a virtual private cloud (VPC) • **CCN**: a Cloud Connect Network (CCN) instance • **VBR**: a VBR • **TR**: a transit router
Status	String	Active	The state of the route learning correlation. Valid values: • **Enabling** • **Disabling** • **Active** • **Deleted**
TransitRouterAttachmentId	String	tr-attach-vx6iwhjr1x1j78****	The ID of the network instance connection.
TransitRouterRouteTableId	String	vtb-bp1dudbh2d5na6b50****	The ID of the route table of the Enterprise Edition transit router.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ListTransitRouterRouteTablePropagations
&TransitRouterRouteTableId=vtb-bp1dudbh2d5na6b50****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ListTransitRouterRouteTablePropagationsResponse>
  <TotalCount>2</TotalCount>
  <RequestId>04C81E0D-945E-4D61-A561-3DEA322F243B</RequestId>
  <MaxResults>50</MaxResults>
  <TransitRouterPropagations>
        <Status>Active</Status>
        <TransitRouterAttachmentId>tr-attach-nls9fzkfat8934****</TransitRouterAttachmentId>
        <TransitRouterRouteTableId>vtb-bp1dudbh2d5na6b50****</TransitRouterRouteTableId>
        <ResourceId>vpc-bp1h8vbrbcgohcju5****</ResourceId>
        <ResourceType>VPC</ResourceType>
  </TransitRouterPropagations>
  <TransitRouterPropagations>
        <Status>Active</Status>
        <TransitRouterAttachmentId>tr-attach-vx6iwhjr1x1j78****</TransitRouterAttachmentId>
        <TransitRouterRouteTableId>vtb-bp1dudbh2d5na6b50****</TransitRouterRouteTableId>
        <ResourceId>vpc-bp1kbjcre9vtsebo1****</ResourceId>
        <ResourceType>VPC</ResourceType>
  </TransitRouterPropagations>
</ListTransitRouterRouteTablePropagationsResponse>
```

`JSON` format

```
{
  "TotalCount": 2,
  "RequestId": "04C81E0D-945E-4D61-A561-3DEA322F243B",
  "MaxResults": 50,
  "TransitRouterPropagations": [
    {
      "Status": "Active",
      "TransitRouterAttachmentId": "tr-attach-nls9fzkfat8934****",
      "TransitRouterRouteTableId": "vtb-bp1dudbh2d5na6b50****",
      "ResourceId": "vpc-bp1h8vbrbcgohcju5****",
      "ResourceType": "VPC"
    },
    {
      "Status": "Active",
      "TransitRouterAttachmentId": "tr-attach-vx6iwhjr1x1j78****",
      "TransitRouterRouteTableId": "vtb-bp1dudbh2d5na6b50****",
      "ResourceId": "vpc-bp1kbjcre9vtsebo1****",
      "ResourceType": "VPC"
    }
  ]
}
```

Error codes

HttpCode	Error code	Error message	Description
400	IllegalParam.NextToken	The parameter NextToken is invalid.	The error message returned because the value of NextToken is invalid. Check the limits and change the value accordingly.

For a list of error codes, visit the API Error Center.

16.3. DisableTransitRouterRouteTablePropagation

Deletes a route learning correlation.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description

Parameter	Type	Required	Example	Description
Action	String	No	DisableTransitRouterRouteTablePropagation	The operation that you want to perform. Set the value to **DisableTransitRouterRouteTablePropagation**.
TransitRouterAttachmentId	String	Yes	tr-attach-vx6iwhjr1x1j78****	The ID of the network instance connection.
TransitRouterRouteTableId	String	Yes	vtb-bp1dudbh2d5na6b50****	The route table ID of the Enterprise Edition transit router.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must ensure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether to only precheck the request. Check items include permissions and the status of the specified instances. Valid values: • **false** (default): sends a normal request. If the request passes the precheck, the route learning correlation is deleted. • **true**: sends a request for precheck only. The route learning correlation is not deleted after the request passes the precheck. If you select this option, the system checks whether the required parameters are set, and whether the request syntax is valid. If the request fails to pass the precheck, the system returns an error. If the request passes the precheck, the system returns the ID of the request.

Response parameters

Parameter	Type	Example	Description
RequestId	String	A7C43F99-B1E5-4A53-AB64-4BAE8AF4484E	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DisableTransitRouterRouteTablePropagation
&TransitRouterAttachmentId=tr-attach-vx6iwhjr1x1j78****
&TransitRouterRouteTableId=vtb-bp1dudbh2d5na6b50****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DisableTransitRouterRouteTablePropagationResponse>
  <RequestId>A7C43F99-B1E5-4A53-AB64-4BAE8AF4484E</RequestId>
</DisableTransitRouterRouteTablePropagationResponse>
```

`JSON` format

```
{
  "RequestId": "A7C43F99-B1E5-4A53-AB64-4BAE8AF4484E"
}
```

Error codes

For a list of error codes, visit the API Error Center.

17.Route maps

17.1. CreateCenRouteMap

Creates a routing policy for a CEN instance.

Usage notes

You can configure routing policies to filter and modify routes. This allows you to manage network communication in the cloud.

Routing policies are sorted by priority. A smaller value indicates a higher priority. Each routing policy is a collection of conditional statements and execution statements. Starting from the routing policy with the highest priority, the system matches routes against the match conditions specified by routing policies. If a route meets all the match conditions of a routing policy, the system permits or denies the route based on the action specified by the routing policy. You can also modify the attributes of permitted routes. By default, the system permits routes that meet none of the match conditions. For more information, see Routing policy overview.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateCenRouteMap	The operation that you want to perform. Set the value to **CreateCenRouteMap**.
CenId	String	Yes	cen-7qthudw0ll6jmc****	The ID of the CEN instance.
CenRegionId	String	Yes	cn-hangzhou	The ID of the region where the routing policy is applied. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
TransmitDirection	String	Yes	RegionIn	The direction in which the routing policy is applied. Valid values: • **RegionIn**: Routes are advertised to the gateways in the regions that are connected by the CEN instance. For example, routes are advertised from network instances deployed in the current region or other regions to the gateway deployed in the current region. • **RegionOut**: Routes are advertised from the gateways in the regions that are connected by the CEN instance. For example, routes are advertised from the gateway deployed in the current region to network instances deployed in the same region, or to gateways deployed in other regions.
Description	String	No	desctest	Enter a description for the routing policy. The description must be 2 to 256 characters in length, and can contain letters, digits, hyphens (-), periods (.), and underscores (_). It must start with a letter and cannot start with `http://` or `https://`.

Parameter	Type	Required	Example	Description
Priority	Integer	Yes	3	The priority of the routing policy. Valid values: **1** to **100**. A smaller value indicates a higher priority. **Note** You cannot specify the same priority for routing policies that apply in the same region and direction. The system matches routes against the match conditions of routing policies in descending order of priority. A smaller value indicates a higher priority. You must set the priorities to proper values.
MapResult	String	Yes	Permit	The action to be performed on a route that meets all match conditions. Valid values: • **Permit**: the route is permitted. • **Deny**: the route is denied.
NextPriority	Integer	No	20	Specify a priority for the routing policy that you want to associate with the current one. • This parameter takes effect only when the **MapResult** parameter is set to **Permit**. This way, the permitted route is matched against the next routing policy. • The region and direction of the routing policy to be associated must be the same as those of the current routing policy. • The priority of the next routing policy must be lower than the priority of the current routing policy.
CidrMatchMode	String	No	Include	The match method that is used to match routes based on the prefix. Valid values: • **Include**: fuzzy match. A route is a match if the route prefix is included in the match conditions. For example, if you set the match condition to 10.10.0.0/16 and fuzzy match is enabled, the route whose prefix is 10.10.1.0/24 is a match. • **Complete**: exact match. A route is a match only if the route prefix is the same as the prefix specified in the match condition. For example, if you set the match condition to 10.10.0.0/16 and exact match is enabled, a route is a match only if the prefix is 10.10.0.0/16.
AsPathMatchMode	String	No	Include	The match method that is used to match routes based on the AS path. Valid values: • **Include**: fuzzy match. A route is a match if the AS path of the route overlaps with the AS path specified in the match condition. • **Complete**: exact match. A route is a match only if the AS path of the route is the same as the AS path specified in the match condition.
CommunityMatchMode	String	No	Include	The match method that is used to match routes based on the community. Valid values: • **Include**: fuzzy match. A route is a match if the community of the route overlaps with the community specified in the match condition. • **Complete**: exact match. A route is a match only if the community of the route is the same as the community specified in the match condition.

Parameter	Type	Required	Example	Description
CommunityOperateMode	String	No	Additive	The action that is performed on the community of the route. Valid values: • **Additive**: adds the community to the route. • **Replace**: replaces the original community of the route. This parameter specifies the action to be performed when a route meets the match condition.
Preference	Integer	No	50	The new priority of the route. Valid values: **1** to **100**. The default priority is **50**. A smaller value indicates a higher priority. This parameter specifies the action to be performed when a route meets the match condition.
SourceInstanceIdsReverseMatch	Boolean	No	false	Specifies whether to exclude the source network instance IDs. Valid values: • **false** (default value): A route is a match if its source network instance ID is in the list specified by **SourceInstanceIds.N**. • **true**: A route is a match if its source network instance ID is not in the list specified by **SourceInstanceIds.N**.
DestinationInstanceIdsReverseMatch	Boolean	No	false	Specifies whether to exclude the destination network instance IDs. Valid values: • **false** (default value): A route is a match if its destination network instance ID is in the list specified by **DestinationInstanceIds.N**. • **true**: A route is a match if its destination network instance ID is not in the list specified by **DestinationInstanceIds.N**.
TransitRouterRouteTableId	String	No	vtb-gw8nx3515m1mbd1z1****	The ID of the route table of the transit router. If you do not specify a route table ID, the routing policy is automatically associated with the default route table of the transit router.
SourceInstanceIds.N	String	No	vpc-adeg3544fdf34vf****	The IDs of the source network instances to which the routes belong. The following network instance types are supported: • Virtual private cloud (VPC) • Virtual border router (VBR) • Cloud Connect Network (CCN) instance • Smart Access Gateway (SAG) instance You can enter at most 32 network instance IDs.

Parameter	Type	Required	Example	Description
DestinationInstanceIds.N	String	No	vpc-afrfs434465fdf****	The IDs of the destination network instances to which the routes belong. The following network instance types are supported: • VPC • VBR • CCN instance • SAG instance You can enter at most 32 network instance IDs. **Note** The destination network instance IDs are valid only when the routing policy is applied to scenarios where routes are advertised from the gateway in the current region to network instances in the current region.
SourceRouteTableIds.N	String	No	vtb-adfr233vf34rvd4****	The IDs of the source route tables to which the routes belong. You can enter at most 32 route table IDs.
DestinationRouteTableIds.N	String	No	vtb-adefrgtr144vf****	The IDs of the destination route tables to which the routes belong. You can enter at most 32 route table IDs. **Note** The destination route table IDs are valid only when the routing policy is applied to scenarios where routes are advertised from the gateway in the current region to route tables in the current region.
SourceRegionIds.N	String	No	cn-beijing	The IDs of the source regions to which the routes belong. You can enter at most 32 region IDs. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
SourceChildInstanceTypes.N	String	No	VPC	The types of source network instances to which the routes belong. The following types of network instances are supported: • **VPC**: VPC • **VBR**: VBR • **CCN**: CCN instance You can specify one or more network instance types.
DestinationChildInstanceTypes.N	String	No	VPC	The types of destination network instances to which the routes belong. The following types of network instances are supported: • **VPC**: VPC • **VBR**: VBR • **CCN**: CCN instance You can specify one or more network instance types. **Note** The destination network instance types are valid only when the routing policy is applied to scenarios where routes are advertised from the gateway in the current region to network instances in the current region.

Parameter	Type	Required	Example	Description
DestinationCidrBlocks.N	String	No	10.10.10.0/24	The prefixes of the routes. You must specify the IP addresses in CIDR notation. You can enter at most 32 CIDR blocks.
RouteTypes.N	String	No	System	The type of route to be compared. Valid values: The following route types are supported: • **System**: system routes that are automatically generated by the system. • **Custom**: custom routes that are manually added. • **BGP**: routes that are advertised over Border Gateway Protocol (BGP). You can specify multiple route types.
MatchAsns.N	Long	No	65501	The AS paths based on which routes are compared. You can specify at most 32 AS numbers. **Note** Only the AS-SEQUENCE parameter is supported. The AS-SET, AS-CONFED-SEQUENCE, and AS-CONFED-SET parameters are not supported. In other words, only the AS number list is supported. Sets and sub-lists are not supported.
MatchCommunitySet.N	String	No	65501:1	The community set based on which routes are compared. Specify the community in the format of n:m. Valid values of n and m: **1** to **65535**. Each community must comply with the RFC 1997 standard. The RFC 8092 standard that defines Border Gateway Protocol (BGP) large communities is not supported. You can specify at most 32 communities. **Note** If the configurations of the communities are incorrect, routes may fail to be advertised to your data center.
OperateCommunitySet.N	String	No	65501:1	The community set on which actions are performed. Specify the community in the format of n:m. Valid values of n and m: **1** to **65535**. Each community must comply with RFC 1997. The RFC 8092 standard that defines BGP large communities is not supported. You can specify at most 32 communities. **Note** If the configurations of the communities are incorrect, routes may fail to be advertised to your data center.

Parameter	Type	Required	Example	Description
PrependAsPath.N	Long	No	65501	The AS paths that are prepended by using an action statement when regional gateways receive or advertise routes. The AS paths vary based on the direction in which the routing policy is applied: • If AS paths are prepended to a routing policy that is applied in the inbound direction, you must specify source network instance IDs and the source region in the match condition. In addition, the source region must be the same as the region where the routing policy is applied. • If AS paths are prepended to a routing policy that is applied in the outbound direction, you must specify destination network instance IDs in the match condition. This parameter specifies the action to be performed when a route meets the match condition. You can specify at most 32 AS numbers.

Response parameters

Parameter	Type	Example	Description
RouteMapId	String	cenrmap-w4yf7toozfol3q****	The ID of the routing policy.
RequestId	String	62172DD5-6BAC-45DF-8D44-56SDF467BAC	The ID of the request.

Examples

Sample request

```
http(s)://[Endpoint]/?Action=CreateCenRouteMap
&CenId=cen-7qthudw0ll6jmc****
&CenRegionId=cn-hangzhou
&Priority=3
&TransmitDirection=RegionIn
&MapResult=Permit
&<Common request parameters>
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<CreateCenRouteMapResponse>
<RequestId>62172DD5-6BAC-45DF-8D44-56SDF467BAC</RequestId>
<RouteMapId>cenrmap-w4yf7toozfol3q****</RouteMapId>
</CreateCenRouteMapResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "62172DD5-6BAC-45DF-8D44-56SDF467BAC",
  "RouteMapId" : "cenrmap-w4yf7toozfol3q****"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	Forbidden.CenRouteMapExist	The specified CEN route map ID already exists.	The error message returned because the routing policy already exists.
400	InvalidOperation.NoEffictiveAction	No effective action be configured.	The error message returned because the specified action is invalid.

For a list of error codes, visit the API Error Center.

17.2. DescribeCenRouteMaps

Queries the routing policies of a Cloud Enterprise Network (CEN) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeCenRouteMaps	The operation that you want to perform. Set the value to **DescribeCenRouteMaps**.
PageNumber	Integer	No	1	The page number of the page to return. Default value: **1**.
PageSize	Integer	No	10	The number of entries to return on each page. Default value: **10**.
CenId	String	Yes	cen-wx12mmlt17ld82****	The ID of the CEN instance.
RouteMapId	String	No	cenrmap-y40mxdvf7joc12****	The ID of the routing policy.
CenRegionId	String	No	cn-hangzhou	The ID of the region where the routing policy is applied. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
TransmitDirection	String	No	RegionOut	The direction in which the routing policy is applied. Valid values: • **RegionIn**: Routes are advertised to the gateways in the regions that are connected by the CEN instance. For example, routes are advertised from network instances deployed in the current region or other regions to the gateway deployed in the current region. • **RegionOut**: Routes are advertised from the gateways in the regions that are connected by the CEN instance. For example, routes are advertised from the gateway deployed in the current region to network instances deployed in the same region, or to gateways deployed in other regions.
TransitRouterRouteTableId	String	No	vtb-gw8nx3515m1mbd1z1****	The route table ID of the transit router with which the routing policy is associated.

Response parameters

Parameter	Type	Example	Description
PageSize	Integer	10	The number of entries returned per page.
RequestId	String	24CE1987-D1D1-5324-9BAD-2750B60E6ABB	The ID of the request.
PageNumber	Integer	1	The page number of the returned page.
TotalCount	Integer	1	The number of entries returned.
RouteMaps	Array of RouteMap		The information about the routing policy.
RouteMap			
RouteMapId	String	cenrmap-y40mxdvf7joc12****	The ID of the routing policy.
Status	String	Active	The status of the routing policy. Valid values: • **Creating**: being created • **Active**: available • **Deleting**: being deleted
TransmitDirection	String	RegionOut	The direction in which the routing policy is applied.
SourceInstanceIdsReverseMatch	Boolean	false	Indicates whether the source network instance IDs are excluded. • **false** (default value): A route is a match if its source network instance ID is in the list specified by **SourceInstanceIds.N**. • **true**: A route is match if its source network instance ID is not in the list specified by **SourceInstanceIds.N**.
CenRegionId	String	cn-hangzhou	The ID of the region where the routing policy is applied.
CenId	String	cen-wx12mmlt17ld82****	The ID of the CEN instance.
Priority	Integer	5000	The priority of the routing policy. A smaller value indicates a higher priority.
TransitRouterRouteTableId	String	vtb-gw8nx3515m1mbd1z1****	The route table ID of the transit router with which the routing policy is associated.
CommunityOperateMode	String	Additive	The action that is performed on the community of the route. • **Additive**: adds the community to the route. • **Replace**: replaces the original community of the route. This parameter specifies the action to be performed when a route meets the match condition.
MapResult	String	Deny	The action performed on a route that meets the match conditions. • **Permit**: the route is permitted. • **Deny**: the route is denied.

Parameter	Type	Example	Description
CommunityMatchMode	String	Include	The match method that is used to match routes based on the community. • **Include**: fuzzy match. A route is a match if the community of the route overlaps with the community specified in the match condition. • **Complete**: exact match. A route is a match only if the community of the route is the same as the community specified in the match condition.
Description	String	desctest	Enter a description for the routing policy.
AsPathMatchMode	String	Include	The match method that is used to match routes based on the AS path. • **Include**: fuzzy match. A route is a match if the AS path of the route overlaps with the AS path specified in the match condition. • **Complete**: exact match. A route is a match only if the AS path of the route is the same as the AS path specified in the match condition.
Preference	Integer	20	The new priority of the route. A smaller value indicates a higher priority. This parameter specifies the action to be performed when a route meets the match condition.
DestinationInstanceIdsReverseMatch	Boolean	false	Indicates whether the destination network instance IDs are excluded. • **false** (default value): A route is a match if its destination network instance ID is in the list specified by **DestinationInstanceIds.N**. • **true**: A route is a match if its destination network instance ID is not in the list specified by **DestinationInstanceIds.N**.
CidrMatchMode	String	Include	The match method that is used to match routes based on the prefix. Valid values: • **Include**: fuzzy match. A route is a match if the route prefix is included in the match conditions. For example, if you set the match condition to 10.10.0.0/16 and fuzzy match is enabled, the route whose prefix is 10.10.1.0/24 is a match. • **Complete**: exact match. A route is a match only if the route prefix is the same as the prefix specified in the match condition. For example, if you set the match condition to 10.10.0.0/16 and exact match is enabled, a route is a match only if the prefix is 10.10.0.0/16.
NextPriority	Integer	33	Specify a priority for the routing policy that you want to associate with the current one.
SourceRegionIds	Array of String	cn-hangzhou	The IDs of the source regions to which the routes belong.

Parameter	Type	Example	Description
SourceChildInstanceTypes	Array of String	VPC	The types of source network instances to which the routes belong. • **VPC**: virtual private cloud (VPC) • **VBR**: virtual border router (VBR) • **CCN**: Cloud Connect Network (CCN) instance
DestinationRouteTableIds	Array of String	vtb-adefrgtr144vf****	The IDs of the destination route tables to which the routes belong. You can enter at most 32 route table IDs. **Note** The destination route table IDs are valid only when the routing policy is applied to scenarios where routes are advertised from the gateway in the current region to route tables in the current region.
SourceInstanceIds	Array of String	vpc-adeg3544fdf34vf****	The IDs of the source network instances to which the routes belong.
DestinationCidrBlocks	Array of String	10.10.10.0/24	The prefixes of the routes.
SourceRouteTableIds	Array of String	vtb-adfr233vf34rvd4****	The IDs of the source route tables to which the routes belong.
MatchCommunitySet	Array of String	65501:1	The community set based on which the routes are compared.
PrependAsPath	Array of String	65501	The AS paths that are prepended by using an action statement when regional gateways receive or advertise routes. This parameter specifies the action to be performed when a route meets the match condition.
RouteTypes	Array of String	System	The type of route that is compared. Valid values: • **System**: system routes that are automatically generated by the system. • **Custom**: custom routes that are manually added. • **BGP**: routes that are advertised over Border Gateway Protocol (BGP).
DestinationChildInstanceTypes	Array of String	VPC	The types of destination network instances to which the routes belong. • **VPC**: VPC • **VBR**: VBR • **CCN**: CCN instance **Note** The destination network instance types are valid only when the routing policy is applied to scenarios where routes are advertised from the gateway in the current region to network instances in the current region.

Parameter	Type	Example	Description
DestinationInstanceIds	Array of String	vpc-afrfs434465fdf****	The IDs of the destination network instances to which the routes belong. **Note** The destination network instance IDs are valid only when the routing policy is applied to scenarios where routes are advertised from the gateway in the current region to network instances in the current region.
MatchAsns	Array of String	65501	The AS paths based on which the routes are compared.
OperateCommunitySet	Array of String	65501:1	The community set on which actions are performed.

Examples

Sample request

```
http(s)://[Endpoint]/?Action=DescribeCenRouteMaps
&PageNumber=1
&PageSize=10
&CenId=cen-wx12mmlt171d82****
&RouteMapId=cenrmap-y40mxdvf7joc12****
&CenRegionId=cn-hangzhou
&TransmitDirection=RegionOut
&TransitRouterRouteTableId=vtb-gw8nx3515m1mbd1z1****
&Common request parameters
```

Sample responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DescribeCenRouteMapsResponse>
    <TotalCount>1</TotalCount>
    <RequestId>24CE1987-D1D1-5324-9BAD-2750B60E6ABB</RequestId>
    <PageSize>10</PageSize>
    <PageNumber>1</PageNumber>
    <RouteMaps>
        <RouteMap>
            <Status>Active</Status>
            <TransitRouterRouteTableId>vtb-gw8nx3515m1mbd1z1****</TransitRouterRouteTableId>
            <Priority>5000</Priority>
            <SourceChildInstanceTypes>
                <SourceChildInstanceType>VBR</SourceChildInstanceType>
                <SourceChildInstanceType>CCN</SourceChildInstanceType>
            </SourceChildInstanceTypes>
            <CenId>cen-wx12mmlt171d82****</CenId>
            <TransmitDirection>RegionOut</TransmitDirection>
            <CenRegionId>cn-hangzhou</CenRegionId>
            <RouteMapId>cenrmap-y40mxdvf7joc12****</RouteMapId>
            <MapResult>Deny</MapResult>
            <DestinationChildInstanceTypes>
                <DestinationChildInstanceType>VBR</DestinationChildInstanceType>
                <DestinationChildInstanceType>CCN</DestinationChildInstanceType>
            </DestinationChildInstanceTypes>
        </RouteMap>
    </RouteMaps>
</DescribeCenRouteMapsResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "TotalCount" : 1,
  "RequestId" : "24CE1987-D1D1-5324-9BAD-2750B60E6ABB",
  "PageSize" : 10,
  "PageNumber" : 1,
  "RouteMaps" : {
    "RouteMap" : [ {
      "Status" : "Active",
      "TransitRouterRouteTableId" : "vtb-gw8nx3515m1mbd1z1****",
      "Priority" : 5000,
      "SourceChildInstanceTypes" : {
        "SourceChildInstanceType" : [ "VBR", "CCN" ]
      },
      "CenId" : "cen-wx12mmlt17ld82****",
      "TransmitDirection" : "RegionOut",
      "CenRegionId" : "cn-hangzhou",
      "RouteMapId" : "cenrmap-y40mxdvf7joc12****",
      "MapResult" : "Deny",
      "DestinationChildInstanceTypes" : {
        "DestinationChildInstanceType" : [ "VBR", "CCN" ]
      }
    } ]
  }
}
```

Error codes

For a list of error codes, visit the API Error Center.

17.3. ModifyCenRouteMap

Modifies a route map.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ModifyCenRouteMap	The operation that you want to perform. Set the value to **ModifyCenRouteMap**.
CenId	String	Yes	cen-7qthudw0ll6jmc****	The ID of the Cloud Enterprise Network (CEN) instance.
CenRegionId	String	Yes	cn-hangzhou	The ID of the region where the route map is applied. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
MapResult	String	Yes	Permit	The action to be performed on a route that meets all match conditions. Valid values: • **Permit**: the route is permitted. • **Deny**: the route is denied.

Parameter	Type	Required	Example	Description
Priority	Integer	Yes	10	The priority of the route map. Valid values: **1** to **100**. A smaller value indicates a higher priority. **Note** The priority of each route map applied in one region and direction must be unique. The system evaluates routes against the match conditions of route maps in the descending order of priority. A smaller value indicates a higher priority. Therefore, set appropriate values to sort the route maps in the desired order.
RouteMapId	String	Yes	cenrmap-abcdedfghij****	The ID of the route map.
NextPriority	Integer	No	20	The priority of the next associated route map. • This parameter takes effect only when the **MapResult** parameter is set to **Permit**. This way, the permitted route is evaluated against the next route map. • The region and direction of the next route map must be the same as those of the current route map. • The priority of the next route map must be lower than the priority of the current route map.
Description	String	No	desctest	The description of the route map. The description cannot start with `http://` or `https://`. It must start with a letter and can contain letters, digits, hyphens (-), periods (.), and underscores (_).
SourceRegionIds.N	RepeatList	No	cn-beijing	The IDs of the source regions from which routes are evaluated. You can enter at most 32 region IDs. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
SourceInstanceIds.N	RepeatList	No	vpc-afsfdf5435vcvc****	The IDs of the source network instances from which routes are evaluated. The following types of network instances are supported: • VPC • VBR • CCN • SAG You can enter at most 32 network instance IDs.
SourceInstanceIdsReverseMatch	Boolean	No	false	Specifies whether to exclude the source network instance IDs. Valid values: • **false** (default value): A route meets the match condition if its source network instance ID is in the list specified by **SourceInstanceIds.N**. • **true**: A route meets the match condition if its source network instance ID is not in the list specified by **SourceInstanceIds.N**.

Parameter	Type	Required	Example	Description
DestinationInstanceIds.N	RepeatList	No	vpc-avcdsg34ds****	The IDs of the destination network instances to which routes are evaluated. The following types of network instances are supported: • VPC • VBR • CCN • SAG You can enter at most 32 network instance IDs. **Note** The destination network instance IDs are valid only when the route map is applied to scenarios where routes are advertised from the gateway in the current region to network instances in the current region.
DestinationInstanceIdsReverseMatch	Boolean	No	false	Specifies whether to exclude the destination network instance IDs. Valid values: • **false** (default value): A route meets the match condition if its destination network instance ID is in the list specified by **DestinationInstanceIds.N**. • **true**: A route meets the match condition if its destination network instance ID is not in the list specified by **DestinationInstanceIds.N**.
SourceRouteTableIds.N	RepeatList	No	vtb-acdbvtbr342cd****	The IDs of the source route tables from which routes are evaluated. You can enter at most 32 route table IDs.
DestinationRouteTableIds.N	RepeatList	No	vtb-adfg53c322v****	The IDs of the destination route tables to which routes are evaluated. You can enter at most 32 route table IDs. **Note** The destination route table IDs are valid only when the route map is applied to scenarios where routes are advertised from the gateway in the current region to route tables in the current region.
SourceChildInstanceTypes.N	RepeatList	No	VPC	The types of source network instances from which routes are evaluated. The following types of network instances are supported: • **VPC** • **VBR** • **CCN**
DestinationChildInstanceTypes.N	RepeatList	No	VPC	The types of destination network instances to which routes are evaluated. The following types of network instances are supported: • **VPC** • **VBR** • **CCN** **Note** The destination network instance types are valid only when the route map is applied to scenarios where routes are advertised from the gateway in the current region to network instances in the current region.

Parameter	Type	Required	Example	Description
DestinationCidrBlocks.N	RepeatList	No	10.10.10.0/24	The prefixes of matching routes. You must specify the IP addresses in CIDR notation. You can enter at most 32 CIDR blocks.
CidrMatchMode	String	No	Include	The match method that is used to evaluate routes based on the prefix. Valid values: • **Include**: fuzzy match. A route meets the match condition if the route prefix specified in the match condition contains the prefix of the route. For example, if you set the match condition to 10.10.0.0/16 and fuzzy match is applied, the route whose prefix is 10.10.1.0/24 meets the match condition. • **Complete**: exact match. A route meets the match condition only if the prefix of the route is the same as the route prefix specified in the match condition. For example, if you set the match condition to 10.10.0.0/16 and exact match is applied, only the route whose prefix is 10.10.0.0/16 meets the match condition.
RouteTypes.N	RepeatList	No	System	The type of route that is evaluated. Valid values: The following route types are supported: • **System**: system routes that are automatically generated by the system. • **Custom**: custom routes that are manually added. • **BGP**: routes that are advertised over Border Gateway Protocol (BGP).
MatchAsns.N	RepeatList	No	65501	The AS paths based on which routes are evaluated. **Note** Only the AS-SEQUENCE parameter is supported. The AS-SET, AS-CONFED-SEQUENCE, and AS-CONFED-SET parameters are not supported. Specifically, only the AS number list is supported. Sets and sub-lists are not supported.
AsPathMatchMode	String	No	Include	The match method that is used to evaluate routes based on the AS path. Valid values: • **Include**: fuzzy match. A route meets the match condition if the AS path of the route overlaps with the AS path specified in the match condition. • **Complete**: exact match. A route meets the match condition only if the AS path of the route is the same as the AS path specified in the match condition.

Parameter	Type	Required	Example	Description
MatchCommunitySet.N	RepeatList	No	65501:1	The community set based on which routes are evaluated. Specify the community in the format of n:m. Valid values of n and m: **1** to **65535**. Each community must comply with RFC 1997. RFC 8092 that defines BGP large communities is not supported. You can enter at most 32 communities. **Note** If the configurations of the communities are incorrect, routes may not be advertised to your data center.
CommunityMatchMode	String	No	Include	The match method that is used to evaluate routes based on the community. Valid values: • **Include**: fuzzy match. A route meets the match condition if the community of the route overlaps with the community specified in the match condition. • **Complete**: exact match. A route meets the match condition only if the community of the route is the same as the community specified in the match condition.
CommunityOperateMode	String	No	Additive	The action that is performed on the community of the route. Valid values: • **Additive**: adds the community to the route. • **Replace**: replaces the original community of the route. The parameter specifies the action to be performed when a route meets the match condition.
OperateCommunitySet.N	RepeatList	No	65501:1	The community set on which actions are performed. Specify the community in the format of n:m. Valid values of n and m: **1** to **65535**. Each community must comply with RFC 1997. RFC 8092 that defines BGP large communities is not supported. You can enter at most 32 communities. **Note** If the configurations of the communities are incorrect, routes may not be advertised to your data center.
Preference	Integer	No	22	The new priority of the route. Valid values: **1** to **100**. The default priority is **50**. A smaller value indicates a higher priority. The parameter specifies the action to be performed when a route meets the match condition.

Parameter	Type	Required	Example	Description
PrependAsPath.N	RepeatList	No	65501	The AS paths that are prepended by using an action statement when regional gateways receive or advertise routes. The AS paths vary based on the direction in which the route map is applied: • If AS paths are prepended to a route map applied in the inbound direction, you must specify source network instance IDs and the source region in the match condition. In addition, the source region must be the same as the region where the route map is applied. • If AS paths are prepended to a route map applied in the outbound direction, you must specify destination network instance IDs in the match condition. The parameter specifies the action to be performed when a route meets the match condition.

Response parameters

Parameter	Type	Example	Description
RequestId	String	54B48E3D-DF70-471B-AA93-08E683A1B457	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ModifyCenRouteMap
&CenId=cen-7qthudw0ll6jmc****
&CenRegionId=cn-hangzhou
&MapResult=Permit
&Priority=10
&RouteMapId=cenrmap-abcdedfghij****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifyCenRouteMapResponse>
    <RequestId>54B48E3D-DF70-471B-AA93-08E683A1B457</RequestId>
</ModifyCenRouteMapResponse>
```

`JSON` format

```
{
    "RequestId": "54B48E3D-DF70-471B-AA93-08E683A1B457"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidOperation.NoEffictiveAction	No effective action be configured.	The error message returned because the specified action is invalid.

For a list of error codes, visit the API Error Center.

17.4. DeleteCenRouteMap

Deletes a route map.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DeleteCenRouteMap	The operation that you want to perform. Set the value to **DeleteCenRouteMap**.
CenId	String	Yes	cen-7qthudw0ll6jm****	The ID of the Cloud Enterprise Network (CEN) instance.
CenRegionId	String	Yes	cn-hangzhou	The ID of the region where the route map is applied. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
RouteMapId	String	Yes	cenrmap-abcdedfghij****	The ID of the route map.

Response parameters

Parameter	Type	Example	Description
RequestId	String	5903EE99-D542-4E14-BC65-AAC1CB2D3D03	The ID of the request.

Examples

Sample requests

```
https://cbn.aliyuncs.com/?Action=DeleteCenRouteMap
&CenId=cen-7qthudw0ll6jm****
&CenRegionId=cn-hangzhou
&RouteMapId=cenrmap-abcdedfghij****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DeleteCenRouteMapResponse>
      <RequestId>5903EE99-D542-4E14-BC65-AAC1CB2D3D03</RequestId>
</DeleteCenRouteMapResponse>
```

`JSON` format

```
{
    "RequestId":"5903EE99-D542-4E14-BC65-AAC1CB2D3D03"
}
```

Error codes

For a list of error codes, visit the API Error Center.

18.Traffic scheduling

18.1. Traffic marking policy

18.1.1. CreateTrafficMarkingPolicy

Creates a traffic marking policy.

Usage notes

Only Enterprise Edition transit routers support traffic marking policies.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateTrafficMarkingPolicy	The operation that you want to perform. Set the value to **CreateTrafficMarkingPolicy**.
ClientToken	String	No	123e4567-e89b-12d3-a456-426****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must make sure that the value is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether to check the request without performing the operation. Valid values: • **true**: checks the request but does not perform the operation. The system checks whether the required parameters are set, whether the formats of the values are valid, and the service limits. If the request fails the check, an error message is returned. If the request passes the check, the `DryRunOperation` error code is returned. • **false** (default): checks the request. If the request passes the check, the traffic marking policy is created.
TransitRouterId	String	Yes	tr-8vbuqeo5h5pu3m01d****	The ID of the transit router.
TrafficMarkingPolicyName	String	No	nametest	The name of the traffic marking policy. The name must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The name must start with a letter.
TrafficMarkingPolicyDescription	String	No	desctest	The description of the traffic marking policy. The description must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The description must start with a letter.

Parameter	Type	Required	Example	Description
Priority	Integer	Yes	5	The priority value of the traffic marking policy. Valid values: **1** to **100**. The priority value of each traffic marking policy in a transit router must be unique. A smaller value specifies a higher priority.
MarkingDscp	Integer	Yes	5	The differentiated services code point (DSCP) value to be added to packets that match the traffic classification rule. Valid values: **0** to **63**. The DSCP value of each traffic marking policy in a transit router must be unique.
TrafficMatchRules.N.MatchDscp	Integer	No	6	The DSCP value that is used to match packets. Valid values: **0** to **63**. The traffic classification rule matches the packets that contain the specified DSCP value. If you do not set this parameter, packets with all DSCP values are matched. **Note** The DSCP value that you specify for this parameter is the DSCP value that packets carry before they are transmitted over the inter-region connection. You can create up to 50 traffic classification rules at a time. You can specify a DSCP value for each traffic classification rule.
TrafficMatchRules.N.DstCidr	String	No	10.10.10.0/24	The destination CIDR block that is used to match packets. The traffic classification rule matches the packets whose destination IP addresses fall within the specified destination CIDR block. If you do not set this parameter, packets with all destination IP addresses are matched. You can create up to 50 traffic classification rules at a time. You can specify a destination CIDR block for each traffic classification rule.
TrafficMatchRules.N.TrafficMatchRuleDescription	String	No	desctest	The description of the traffic classification rule. You can create up to 50 traffic classification rules at a time. You can specify a description for each traffic classification rule. The description must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The description must start with a letter.
TrafficMatchRules.N.Protocol	String	No	HTTP	The protocol that is used to match packets. Valid values: **HTTP**, **HTTPS**, **TCP**, **UDP**, **SSH**, and **Telnet**. For more information, log on to the CEN console. You can create up to 50 traffic classification rules at a time. You can specify a protocol for each traffic classification rule.

Parameter	Type	Required	Example	Description
TrafficMatchRules.N.DstPortRange.N	Integer	No	80	The destination port range that is used to match packets. Valid values: **-1** and **1** to **65535**. The traffic classification rule matches the packets whose destination ports fall within the destination port range. If you do not set this parameter, packets with all destination ports are matched. You can enter up to two port numbers. Take note of the following rules: • If you enter only one port number such as 1, the system matches the packets whose destination port is 1. • If you enter two port numbers such as 1 and 200, the system matches the packets whose destination ports fall within 1 to 200. • If you enter two port numbers and one of them is -1, the other port number must also be -1. In this case, packets with all destination ports are matched. You can create up to 50 traffic classification rules at a time. You can specify a destination port range for each traffic classification rule.
TrafficMatchRules.N.SrcCidr	String	No	192.168.10.0/24	The source CIDR block that is used to match packets. The traffic classification rule matches the packets whose source IP addresses fall within the specified source CIDR block. If you do not set this parameter, packets with all source IP addresses are matched. You can create up to 50 traffic classification rules at a time. You can specify a source CIDR block for each traffic classification rule.
TrafficMatchRules.N.SrcPortRange.N	Integer	No	1	The source port range that is used to match packets. Valid values: **-1** and **1** to **65535**. The traffic classification rule matches the packets whose source ports fall within the source port range. If you do not set this parameter, packets with all source ports are matched. You can enter up to two port numbers. Take note of the following rules: • If you enter only one port number such as 1, the system matches the packets whose source port is 1. • If you enter two port numbers such as 1 and 200, the system matches the packets whose source ports fall within 1 to 200. • If you enter two port numbers and one of them is -1, the other port number must also be -1. In this case, packets with all source ports are matched. You can create up to 50 traffic classification rules at a time. You can specify a source port range for each traffic classification rule.
TrafficMatchRules.N.TrafficMatchRuleName	String	No	nametest	The name of the traffic classification rule. You can create up to 50 traffic classification rules at a time. You can specify a name for each traffic classification rule. The name must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The name must start with a letter.

Response parameters

Parameter	Type	Example	Description
TrafficMarkingPolicyId	String	tm-u9nxup5kww5po8****	The ID of the traffic marking policy.
RequestId	String	0876E54E-3E36-5C31-89F0-9EE8A9266F9A	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateTrafficMarkingPolicy
&ClientToken=123e4567-e89b-12d3-a456-426****
&DryRun=false
&TransitRouterId=tr-8vbuqeo5h5pu3m01d****
&TrafficMarkingPolicyName=nametest
&TrafficMarkingPolicyDescription=desctest
&Priority=5
&MarkingDscp=5
&TrafficMatchRules=[{"MatchDscp":6,"DstCidr":"10.10.10.0/24","TrafficMatchRuleDescription":"desctest","Protocol":"HTTP","DstPortRange":[80],"SrcCidr":"192.168.10.0/24","SrcPortRange":[1],"TrafficMatchRuleName":"nametest"}]
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<CreateTrafficMarkingPolicyResponse>
    <TrafficMarkingPolicyId>tm-u9nxup5kww5po8****</TrafficMarkingPolicyId>
    <RequestId>0876E54E-3E36-5C31-89F0-9EE8A9266F9A</RequestId>
</CreateTrafficMarkingPolicyResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "TrafficMarkingPolicyId" : "tm-u9nxup5kww5po8****",
  "RequestId" : "0876E54E-3E36-5C31-89F0-9EE8A9266F9A"
}
```

Error code

HttpCode	Error code	Error message	Description
400	InvalidTransitRouterId.NotFound	TransitRouterId is not found.	The error message returned because the ID of the transit router is invalid.

For a list of error codes, visit the API Error Center.

18.1.2. UpdateTrafficMarkingPolicyAttribute

Modifies the name and description of a traffic marking policy.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description

Parameter	Type	Required	Example	Description
Action	String	Yes	UpdateTrafficMarkingPolicyAttribute	The operation that you want to perform. Set the value to **UpdateTrafficMarkingPolicyAttribute**.
ClientToken	String	No	123e4567-e89b-12d3-a456-426****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must make sure that the value is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether to check the request without performing the operation. Valid values: • **true**: checks the request but does not modify the name and description of the traffic marking policy. The system checks whether the required parameters are set, whether the formats of the values are valid, and the service limits. If the request fails the check, an error message is returned. If the request passes the check, the `DryRunOperation` error code is returned. • **false** (default): checks the request. If the request passes the check, the name and description of the traffic marking policy are modified.
TrafficMarkingPolicyId	String	Yes	tm-u9nxup5kww5po8****	The ID of the traffic marking policy.
TrafficMarkingPolicyName	String	No	nametest	The new name of the traffic marking policy. The name must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The name must start with a letter.
TrafficMarkingPolicyDescription	String	No	desctest	The new description of the traffic marking policy. The description must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The description must start with a letter.

Response parameters

Parameter	Type	Example	Description
RequestId	String	60BB11B2-7BF4-54DC-BCC9-F706E1EB02AC	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=UpdateTrafficMarkingPolicyAttribute
&ClientToken=123e4567-e89b-12d3-a456-426****
&DryRun=false
&TrafficMarkingPolicyId=tm-u9nxup5kww5po8****
&TrafficMarkingPolicyName=nametest
&TrafficMarkingPolicyDescription=desctest
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<UpdateTrafficMarkingPolicyAttributeResponse>
    <RequestId>60BB11B2-7BF4-54DC-BCC9-F706E1EB02AC</RequestId>
</UpdateTrafficMarkingPolicyAttributeResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "60BB11B2-7BF4-54DC-BCC9-F706E1EB02AC"
}
```

Error codes

For a list of error codes, visit the API Error Center.

18.1.3. AddTrafficMatchRuleToTrafficMarkingPolicy

Adds a traffic classification rule to a traffic marking policy.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	AddTrafficMatchRuleToTrafficMarkingPolicy	The operation that you want to perform. Set the value to **AddTrafficMatchRuleToTrafficMarkingPolicy**.
ClientToken	String	No	123e4567-e89b-12d3-a456-426****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must make sure that the value is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether to check the request without performing the operation. Valid values: • **true**: checks the request but does not add the traffic classification rule. The system checks whether the required parameters are set, whether the formats of the values are valid, and the service limits. If the request fails the check, an error message is returned. If the request passes the check, the `DryRunOperation` error code is returned. • **false** (default): checks the request. If the request passes the check, the traffic classification rule is added.
TrafficMarkingPolicyId	String	Yes	tm-u9nxup5kww5po8****	The ID of the traffic marking policy.

Parameter	Type	Required	Example	Description
TrafficMatchRules.N.MatchDscp	Integer	No	5	The differentiated services code point (DSCP) value that is used to match packets. Valid values: **0** to **63**. The traffic classification rule matches the packets that contain the specified DSCP value. If you do not set this parameter, packets with all DSCP values are matched. **Note** The DSCP value that you specify for this parameter is the DSCP value that packets carry before they are transmitted over the inter-region connection.
TrafficMatchRules.N.DstCidr	String	No	10.10.10.0/24	The destination CIDR block that is used to match packets. The traffic classification rule matches the packets whose destination IP addresses fall within the specified destination CIDR block. If you do not set this parameter, packets with all destination IP addresses are matched.
TrafficMatchRules.N.TrafficMatchRuleDescription	String	No	desctest	The description of the traffic classification rule. The description must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The description must start with a letter.
TrafficMatchRules.N.Protocol	String	No	HTTP	The protocol that is used to match packets. Valid values: **HTTP**, **HTTPS**, **TCP**, **UDP**, **SSH**, and **Telnet**. For more information, log on to the CEN console.
TrafficMatchRules.N.DstPortRange.N	Integer	No	80	The destination port range that is used to match packets. Valid values: **-1** and **1** to **65535**. The traffic classification rule matches the packets whose destination ports fall within the destination port range. If you do not set this parameter, packets with all destination ports are matched. You can enter up to two port numbers. Take note of the following rules: • If you enter only one port number such as 1, the system matches the packets whose destination port is 1. • If you enter two port numbers such as 1 and 200, the system matches the packets whose destination ports fall within 1 to 200. • If you enter two port numbers and one of them is -1, the other port number must also be -1. In this case, packets with all destination ports are matched.
TrafficMatchRules.N.SrcCidr	String	No	192.168.10.0/24	The source CIDR block that is used to match packets. The traffic classification rule matches the packets whose source IP addresses fall within the specified source CIDR block. If you do not set this parameter, packets with all source IP addresses are matched.

Parameter	Type	Required	Example	Description
TrafficMatchRules.N.SrcPortRange.N	Integer	No	200	The source port range that is used to match packets. Valid values: **-1** and **1** to **65535**. The traffic classification rule matches the packets whose source ports fall within the source port range. If you do not set this parameter, packets with all source ports are matched. You can enter up to two port numbers. Take note of the following rules: • If you enter only one port number such as 1, the system matches the packets whose source port is 1. • If you enter two port numbers such as 1 and 200, the system matches the packets whose source ports fall within 1 to 200. • If you enter two port numbers and one of them is -1, the other port number must also be -1. In this case, packets with all source ports are matched.
TrafficMatchRules.N.TrafficMatchRuleName	String	No	nametest	The name of the traffic classification rule. The name must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The name must start with a letter.

Response parameters

Parameter	Type	Example	Description
RequestId	String	0876E54E-3E36-5C31-89F0-9EE8A9266F9A	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=AddTraficMatchRuleToTrafficMarkingPolicy
&ClientToken=123e4567-e89b-12d3-a456-426****
&DryRun=false
&TrafficMarkingPolicyId=tm-u9nxup5kww5po8****
&TrafficMatchRules=[{"MatchDscp":5,"DstCidr":"10.10.10.0/24","TrafficMatchRuleDescription":"desctest","Protocol":"HTTP","DstPortRange":[80],"SrcCidr":"192.168.10.0/24","SrcPortRange":[200],"TrafficMatchRuleName":"nametest"}]
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<AddTraficMatchRuleToTrafficMarkingPolicyResponse>
    <RequestId>0876E54E-3E36-5C31-89F0-9EE8A9266F9A</RequestId>
</AddTraficMatchRuleToTrafficMarkingPolicyResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "0876E54E-3E36-5C31-89F0-9EE8A9266F9A"
}
```

Error codes

For a list of error codes, visit the API Error Center.

18.1.4. RemoveTraficMatchRuleFromTrafficMarkingPolicy

Deletes specified traffic classification rules from a traffic marking policy.

Usage notes

Take note of the following rules when you call the `RemoveTraficMatchRuleFromTrafficMarkingPolicy` operation:

- If you specify the ID of a traffic classification rule in the `TrafficMarkRuleIds` parameter, the specified traffic classification rule is deleted.
- If you do not specify a traffic classification rule ID in the `TrafficMarkRuleIds` parameter, no operation is performed after you call this operation.

If you want to delete a traffic classification rule, you must specify the rule ID before you call this operation.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	RemoveTraficMatchRuleFromTrafficMarkingPolicy	The operation that you want to perform. Set the value to **RemoveTraficMatchRuleFromTrafficMarkingPolicy**.
ClientToken	String	No	123e4567-e89b-12d3-a456-426****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must make sure that the value is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether only to precheck the request. Valid values: • **true**: prechecks the request but does not delete traffic classification rules. The system checks whether the required parameters are set, whether the formats of the values are valid, and the service limits. If the request fails the precheck, an error message is returned. If the request passes the precheck, the `DryRunOperation` error code is returned. • **false**: sends the request and deletes the specified traffic classification rules. This is the default value.
TrafficMarkingPolicyId	String	Yes	tm-d33hdczo3qo8ta****	The ID of the traffic marking policy.
TrafficMarkRuleIds.N	String	No	tm-rule-15jtgapsat62r9****	The ID of the traffic classification rule. You can specify at most 20 traffic classification rules. You can call the ListTrafficMarkingPolicies operation to query the IDs of traffic classification rules in a specified traffic marking policy.

Response parameters

Parameter	Type	Example	Description
RequestId	String	6DF9A765-BCD2-5C7E-8C32-C35C8A361A39	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=RemoveTraficMatchRuleFromTrafficMarkingPolicy
&ClientToken=123e4567-e89b-12d3-a456-426****
&DryRun=false
&TrafficMarkingPolicyId=tm-d33hdczo3qo8ta****
&TrafficMarkRuleIds=["tm-rule-15jtgapsat62r9****"]
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<RemoveTraficMatchRuleFromTrafficMarkingPolicyResponse>
    <RequestId>6DF9A765-BCD2-5C7E-8C32-C35C8A361A39</RequestId>
</RemoveTraficMatchRuleFromTrafficMarkingPolicyResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "6DF9A765-BCD2-5C7E-8C32-C35C8A361A39"
}
```

Error codes

For a list of error codes, visit the Error Center.

18.1.5. DeleteTrafficMarkingPolicy

Deletes a specified traffic marking policy.

Usage notes

Before you delete a traffic marking policy, you must delete all traffic classification rules from the policy. For more information, see RemoveTraficMatchRuleFromTrafficMarkingPolicy.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DeleteTrafficMarkingPolicy	The operation that you want to perform. Set the value to **DeleteTrafficMarkingPolicy**.
ClientToken	String	No	123e4567-e89b-12d3-a456-426****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must make sure that the value is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.

Parameter	Type	Required	Example	Description
DryRun	Boolean	No	false	Specifies whether only to precheck the request. Valid values: • **true**: prechecks the request but does not delete the traffic marking policy. The system checks whether the required parameters are set, whether the formats of the values are valid, and the service limits. If the request fails the precheck, an error message is returned. If the request passes the check, the DryRunOperation error code is returned. • **false**: sends the API request. After the request passes the precheck, the traffic marking policy is deleted. This is the default value.
TrafficMarkingPolicyId	String	Yes	tm-u9nxup5kww5po8****	The ID of the traffic marking policy.

Response parameters

Parameter	Type	Example	Description
RequestId	String	5F1F3A57-A753-572B-8F71-4F964398C566	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DeleteTrafficMarkingPolicy
&ClientToken=123e4567-e89b-12d3-a456-426****
&DryRun=false
&TrafficMarkingPolicyId=tm-u9nxup5kww5po8****
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DeleteTrafficMarkingPolicyResponse>
    <RequestId>5F1F3A57-A753-572B-8F71-4F964398C566</RequestId>
</DeleteTrafficMarkingPolicyResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "5F1F3A57-A753-572B-8F71-4F964398C566"
}
```

Error codes

For a list of error codes, visit the Error Center.

18.1.6. ListTrafficMarkingPolicies

Queries the information about a traffic marking policy.

Usage notes

Take note of the following rules when you call the `ListTrafficMarkingPolicies` operation:

- If you specify the ID of a traffic marking policy in the `TrafficMarkingPolicyId` parameter, the information about the traffic marking policy and the traffic classification rules in the policy is returned.
- If you do not specify a traffic marking policy ID in the `TrafficMarkingPolicyId` parameter, this operation returns the information

about the traffic marking policy based on the `TransitRouterId`, `TrafficMarkingPolicyName`, and `TrafficMarkingPolicyDescription` parameters. The information about the traffic classification rules in the policy is not returned.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ListTrafficMarkingPolicies	The operation that you want to perform. Set the value to **ListTrafficMarkingPolicies**.
TransitRouterId	String	Yes	tr-bp1rmwxnk221e3fas****	The ID of the transit router.
TrafficMarkingPolicyId	String	No	tm-hye1k2bum3vnsb****	The ID of the traffic marking policy.
TrafficMarkingPolicyName	String	No	nametest	The name of the traffic marking policy. The name must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The name must start with a letter.
TrafficMarkingPolicyDescription	String	No	desctest	The description of the traffic marking policy. The description must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The description must start with a letter.
MaxResults	Integer	No	20	The number of entries to return on each page. Valid values: **1** to **100**. Default value: **20**.
NextToken	String	No	FFmyTO70tTpLG6l3FmYAXGKPd****	The token that is used for the next query. Valid values: • If this is your first query or no next query is to be sent, ignore this parameter. • If a next query is to be sent, set the value to the value of **NextToken** that is returned from the last call.

Response parameters

Parameter	Type	Example	Description
NextToken	String	FFmyTO70tTpLG6l3FmYAXGKPd****	The token that is used for the next query. • If **NextToken** is empty, it indicates that no next query is to be sent. • If the value returned of **NextToken** is not empty, the value indicates the token that is used for the next query.
RequestId	String	699989E4-64A0-5F78-8B93-CDB32D98971F	The ID of the request.
TotalCount	Integer	1	The number of entries returned.
MaxResults	Integer	20	The number of entries returned per page.
TrafficMarkingPolicies	Array of TrafficMarkingPolicy		The information about the traffic marking policy.

Parameter	Type	Example	Description
TrafficMarkingPolicyStatus	String	Creating	The status of the traffic marking policy. Valid values: • **Creating**: The policy is being created. • **Active**: The policy is available. • **Modifying**: The policy is being modified. • **Deleting**: The policy is being deleted. • **Deleted**: The policy is deleted.
TrafficMarkingPolicyId	String	tm-iz5egnyitxiroq****	The ID of the traffic marking policy.
MarkingDscp	Integer	5	The ifferentiated services code point (DSCP) value of the traffic marking policy.
TrafficMarkingPolicyName	String	nametest	The name of the traffic marking policy.
Priority	Integer	5	The priority of the traffic marking policy. A smaller value indicates a higher priority.
TrafficMarkingPolicyDescription	String	desctest	The description of the traffic marking policy.
TrafficMatchRules	Array of TrafficMatchRule		The information about the traffic classification rule.
MatchDscp	Integer	6	The DSCP value used to match data packets.
DstCidr	String	192.168.120.0/24	The destination CIDR block used to match data packets.
TrafficMatchRuleDescription	String	desctest	The description of the traffic classification rule.
Protocol	String	HTTP	The protocol used to match data packets. **Note** Traffic marking policies support multiple protocols. For more information, see the documentation of CEN.
TrafficMatchRuleId	String	tm-rule-fa9kgq1e90rmhc****	The ID of the traffic classification rule.
SrcCidr	String	192.168.10.0/24	The source CIDR block used to match data packets.
TrafficMatchRuleName	String	nametest	The name of the traffic classification rule.
TrafficMatchRuleStatus	String	Creating	The status of the traffic classification rule. Valid values: • **Creating**: The rule is being created. • **Active**: The rule is available. • **Deleting**: The rule is being deleted. • **Deleted**: The rule is deleted.

Parameter	Type	Example	Description
DstPortRange	Array of Integer	80,80	The destination port range used to match data packets. Two destination port numbers are returned. • If the destination ports are the same, for example, port 80, the traffic classification rule matches data packets that are sent to port 80. If the destination ports are both -1, the traffic classification rule matches all data packets. • If the destination ports are different, for example, port 1 and port 200, the traffic classification rule matches data packets whose destination port ranges from port 1 to port 200.
SrcPortRange	Array of Integer	1,200	The source port range used to match data packets. Two source port numbers are returned. • If the source ports are the same, for example, port 80, the traffic classification rule matches data packets that are sent from port 80. If the source ports are both -1, the traffic classification rule matches all data packets. • If the source ports are different, for example, port 1 and port 200, the traffic classification rule matches data packets whose source port ranges from port 1 to port 200.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ListTrafficMarkingPolicies
&TransitRouterId=tr-bp1rmwxnk221e3fas****
&TrafficMarkingPolicyId=tm-hye1k2bum3vnsb****
&TrafficMarkingPolicyName=nametest
&TrafficMarkingPolicyDescription=desctest
&MaxResults=20
&NextToken=FFmyTO70tTpLG6I3FmYAXGKPd****
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<ListTrafficMarkingPoliciesResponse>
    <NextToken>FFmyTO70tTpLG6I3FmYAXGKPd****</NextToken>
    <RequestId>699989E4-64A0-5F78-8B93-CDB32D98971F</RequestId>
    <TotalCount>6</TotalCount>
    <MaxResults>20</MaxResults>
    <TrafficMarkingPolicies>
        <TrafficMarkingPolicyStatus>Creating</TrafficMarkingPolicyStatus>
        <TrafficMarkingPolicyId>tm-iz5egnyitxiroq****</TrafficMarkingPolicyId>
        <MarkingDscp>5</MarkingDscp>
        <TrafficMarkingPolicyName>nametest</TrafficMarkingPolicyName>
        <Priority>5</Priority>
        <TrafficMarkingPolicyDescription>desctest</TrafficMarkingPolicyDescription>
        <TrafficMatchRules>
            <MatchDscp>6</MatchDscp>
            <DstCidr>192.168.120.0/24</DstCidr>
            <TrafficMatchRuleDescription>desctest</TrafficMatchRuleDescription>
            <Protocol>HTTP</Protocol>
            <TrafficMatchRuleId>tm-rule-fa9kgq1e90rmhc****</TrafficMatchRuleId>
            <SrcCidr>192.168.10.0/24</SrcCidr>
            <TrafficMatchRuleName>nametest</TrafficMatchRuleName>
            <TrafficMatchRuleStatus>Creating</TrafficMatchRuleStatus>
            <DstPortRange>80</DstPortRange>
            <DstPortRange>80</DstPortRange>
            <SrcPortRange>1</SrcPortRange>
            <SrcPortRange>200</SrcPortRange>
        </TrafficMatchRules>
    </TrafficMarkingPolicies>
</ListTrafficMarkingPoliciesResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "NextToken" : "FFmyTO70tTpLG6I3FmYAXGKPd****",
  "RequestId" : "699989E4-64A0-5F78-8B93-CDB32D98971F",
  "TotalCount" : 6,
  "MaxResults" : 20,
  "TrafficMarkingPolicies" : [ {
    "TrafficMarkingPolicyStatus" : "Creating",
    "TrafficMarkingPolicyId" : "tm-iz5egnyitxiroq****",
    "MarkingDscp" : 5,
    "TrafficMarkingPolicyName" : "nametest",
    "Priority" : 5,
    "TrafficMarkingPolicyDescription" : "desctest",
    "TrafficMatchRules" : [ {
      "MatchDscp" : 6,
      "DstCidr" : "192.168.120.0/24",
      "TrafficMatchRuleDescription" : "desctest",
      "Protocol" : "HTTP",
      "TrafficMatchRuleId" : "tm-rule-fa9kgq1e90rmhc****",
      "SrcCidr" : "192.168.10.0/24",
      "TrafficMatchRuleName" : "nametest",
      "TrafficMatchRuleStatus" : "Creating",
      "DstPortRange" : [ 80, 80 ],
      "SrcPortRange" : [ 1, 200 ]
    } ]
  } ]
}
```

Error codes

For a list of error codes, visit the Error Center.

18.2. QoS policies

18.2.1. CreateCenInterRegionTrafficQosPolicy

Creates a quality of service (QoS) policy for inter-region communication.

Usage notes

- Only inter-region connections created on Enterprise Edition transit routers support QoS policies.
- QoS policies apply only to outbound traffic on Enterprise Edition transit routers.

  If you create an inter-region connection between the China (Hangzhou) region and the China (Qingdao) region, and create QoS policies for the transit router in the China (Hangzhou) region and the transit router in the China (Qingdao) region, the QoS policies apply only to the network traffic that flows from China (Hangzhou) to China (Qingdao). QoS policies allocate bandwidth resources to different services.

Make sure that the following requirements are met before you call the `CreateCenInterRegionTrafficQosPolicy` operation:

- An inter-region connection is created. For more information, see CreateTransitRouterPeerAttachment.
- A traffic marking policy is created. For more information, see CreateTrafficMarkingPolicy.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateCenInterRegionTrafficQosPolicy	The operation that you want to perform. Set the value to **CreateCenInterRegionTrafficQosPolicy**.
ClientToken	String	No	123e4567-e89b-12d3-a456-426655****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must make sure that the value is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether only to precheck the request. Valid values: • **true**: prechecks the request but does not create the QoS policy. The system checks whether the required parameters are set, whether the formats of the values are valid, and the service limits. If the request fails the precheck, an error message is returned. If the request passes the precheck, the `DryRunOperation` error code is returned. • **false**: sends the API request. If the request passes the precheck, the QoS policy is created. This is the default value.
TransitRouterId	String	Yes	tr-8vbuqeo5h5pu3m01d****	The ID of the transit router.
TransitRouterAttachmentId	String	Yes	tr-attach-r6g0m3epjehw57****	The ID of the inter-region connection.
TrafficQosPolicyName	String	No	nametest	The name of the QoS policy. The name must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The name must start with a letter.

Parameter	Type	Required	Example	Description
TrafficQosPolicyDescription	String	No	desctest	The description of the QoS policy. The description must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The description must start with a letter.
TrafficQosQueues.N.QosQueueName	String	No	nametest	The name of the current queue. Each QoS policy supports up to three queues. You can specify a name for each queue. The name must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The name must start with a letter.
TrafficQosQueues.N.RemainBandwidthPercent	String	No	1	The percentage of bandwidth resources that can be allocated to the current queue. Each QoS policy supports up to three queues. You can specify a percentage of bandwidth resources for each queue. If you enter **1**, it indicates that the current queue can consume at most **1%** of the bandwidth resources. **Note** The sum of the percentage values of all the queues in a QoS policy cannot exceed 100%.
TrafficQosQueues.N.Dscps.N	Integer	No	5	The differentiated services code point (DSCP) value that matches the current queue. Each QoS policy supports up to three queues. You can specify at most 60 DSCP values for each queue. Separate DSCP values with commas (,).
TrafficQosQueues.N.QosQueueDescription	String	No	desctest	The description of the current queue. Each QoS policy supports up to three queues. You can add a description to each queue. The description must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The description must start with a letter.

Response parameters

Parameter	Type	Example	Description
TrafficQosPolicyId	String	qos-eczzew0v1kzrb5****	The ID of the QoS policy.
RequestId	String	6DF9A765-BCD2-5C7E-8C32-C35C8A361A39	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateCenInterRegionTrafficQosPolicy
&ClientToken=123e4567-e89b-12d3-a456-426655****
&DryRun=false
&TransitRouterId=tr-8vbuqeo5h5pu3m01d****
&TransitRouterAttachmentId=tr-attach-r6g0m3epjehw57****
&TrafficQosPolicyName=nametest
&TrafficQosPolicyDescription=desctest
&TrafficQosQueues=[{"QosQueueName":"nametest","RemainBandwidthPercent":"1","Dscps":[5],"QosQueueDescription":"desctest"}]
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<CreateCenInterRegionTrafficQosPolicyResponse>
    <TrafficQosPolicyId>qos-eczzew0v1kzrb5****</TrafficQosPolicyId>
    <RequestId>6DF9A765-BCD2-5C7E-8C32-C35C8A361A39</RequestId>
</CreateCenInterRegionTrafficQosPolicyResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "TrafficQosPolicyId" : "qos-eczzew0v1kzrb5****",
  "RequestId" : "6DF9A765-BCD2-5C7E-8C32-C35C8A361A39"
}
```

Error codes

For a list of error codes, visit the Error Center.

18.2.2. UpdateCenInterRegionTrafficQosPolicyAttribute

Modifies the name and description of a quality of service (QoS) policy.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	UpdateCenInterRegionTrafficQosPolicyAttribute	The operation that you want to perform. Set the value to **UpdateCenInterRegionTrafficQosPolicyAttribute**.
ClientToken	String	No	123e4567-e89b-12d3-a456-426655****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must make sure that the value is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether to check the request without performing the operation. Valid values: • **true**: checks the request but does not modify the name and description of the QoS policy. The system checks whether the required parameters are set, whether the formats of the values are valid, and the service limits. If the request fails the check, an error message is returned. If the request passes the check, the `DryRunOperation` error code is returned. • **false** (default): checks the request. If the request passes the check, the name and description of the QoS policy are modified.
TrafficQosPolicyId	String	Yes	qos-eczzew0v1kzrb5****	The ID of the QoS policy.

Parameter	Type	Required	Example	Description
TrafficQosPolicyName	String	No	nametest	The new name of the QoS policy. The name must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The name must start with a letter.
TrafficQosPolicyDescription	String	No	desctest	The new description of the QoS policy. The description must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The description must start with a letter.

Response parameters

Parameter	Type	Example	Description
RequestId	String	5B8465FF-E697-5D3D-AAD5-0B4EEADFDB27	The ID of the request.

Examples

Sample requests

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<UpdateCenInterRegionTrafficQosPolicyAttributeResponse>
    <RequestId>5B8465FF-E697-5D3D-AAD5-0B4EEADFDB27</RequestId>
</UpdateCenInterRegionTrafficQosPolicyAttributeResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "5B8465FF-E697-5D3D-AAD5-0B4EEADFDB27"
}
```

Error codes

For a list of error codes, visit the Error Center.

18.2.3. UpdateCenInterRegionTrafficQosQueueAttribute

Modifies a queue in a quality of service (QoS) policy.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	UpdateCenInterRegionTrafficQosQueueAttribute	The operation that you want to perform. Set the value to **UpdateCenInterRegionTrafficQosQueueAttribute**.

Parameter	Type	Required	Example	Description
ClientToken	String	No	123e4567-e89b-12d3-a456-426655****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must make sure that the value is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether to check the request without performing the operation. Valid values: • **true**: checks the request but does not modify the queue. The system checks whether the required parameters are set, whether the formats of the values are valid, and the service limits. If the request fails the check, an error message is returned. If the request passes the check, the `DryRunOperation` error code is returned. • **false** (default): checks the request. If the request passes the check, the queue is modified.
QosQueueId	String	Yes	qos-queue-nv2vfzqkewhk4t****	The ID of the queue.
QosQueueName	String	No	nametest	The new name of the queue. The name must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The name must start with a letter.
QosQueueDescription	String	No	desctest	The new description of the queue. The description must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The description must start with a letter.
RemainBandwidthPercent	String	No	1	The percentage of the inter-region bandwidth that can be used by the queue. Enter a number. You do not need to enter a percent sign (%).
Dscps.N	Integer	No	5	The differentiated services code point (DSCP) value of the packets to be matched by the queue. Valid values: **0** to **63**. You can enter up to 20 DSCP values at a time.

Response parameters

Parameter	Type	Example	Description
RequestId	String	6DF9A765-BCD2-5C7E-8C32-C35C8A361A39	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=UpdateCenInterRegionTrafficQosQueueAttribute
&ClientToken=123e4567-e89b-12d3-a456-426655****
&DryRun=false
&QosQueueId=qos-queue-nv2vfzqkewhk4t****
&QosQueueName=nametest
&QosQueueDescription=desctest
&RemainBandwidthPercent=1
&Dscps=[5]
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<UpdateCenInterRegionTrafficQosQueueAttributeResponse>
    <RequestId>6DF9A765-BCD2-5C7E-8C32-C35C8A361A39</RequestId>
</UpdateCenInterRegionTrafficQosQueueAttributeResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "6DF9A765-BCD2-5C7E-8C32-C35C8A361A39"
}
```

Error codes

For a list of error codes, visit the Error Center.

18.2.4. DeleteCenInterRegionTrafficQosQueue

Deletes a queue from a quality of service (QoS) policy.

Usage notes

You cannot delete the default queue.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DeleteCenInterRegionTrafficQosQueue	The operation that you want to perform. Set the value to **DeleteCenInterRegionTrafficQosQueue**.
ClientToken	String	No	123e4567-e89b-12d3-a456-426****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must make sure that the value is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.

Parameter	Type	Required	Example	Description
DryRun	Boolean	No	false	Specifies whether to check the request without performing the operation. Valid values: • **true**: checks the request but does not delete the queue. The system checks whether the required parameters are set, whether the formats of the values are valid, and the service limits. If the request fails the check, an error message is returned. If the request passes the check, the `DryRunOperation` error code is returned. • **false** (default): checks the request. After the request passes the check, the queue is deleted.
QosQueueId	String	Yes	qos-queue-nv2vfzqkewhk4t****	The ID of the queue.

Response parameters

Parameter	Type	Example	Description
RequestId	String	6DF9A765-BCD2-5C7E-8C32-C35C8A361A39	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DeleteCenInterRegionTrafficQosQueue
&ClientToken=123e4567-e89b-12d3-a456-426****
&DryRun=false
&QosQueueId=qos-queue-nv2vfzqkewhk4t****
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DeleteCenInterRegionTrafficQosQueueResponse>
    <RequestId>6DF9A765-BCD2-5C7E-8C32-C35C8A361A39</RequestId>
</DeleteCenInterRegionTrafficQosQueueResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "6DF9A765-BCD2-5C7E-8C32-C35C8A361A39"
}
```

Error codes

For a list of error codes, visit the Error Center.

18.2.5. DeleteCenInterRegionTrafficQosPolicy

Deletes a quality of service (QoS) policy.

Usage notes

Before you delete a QoS policy, you must delete all queues in the QoS policy except the default queue. For more information, see DeleteCenInterRegionTrafficQosQueue.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DeleteCenInterRegionTrafficQosPolicy	The operation that you want to perform. Set the value to **DeleteCenInterRegionTrafficQosPolicy**.
ClientToken	String	No	123e4567-e89b-12d3-a456-426655****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must make sure that the value is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
DryRun	Boolean	No	false	Specifies whether to check the request without performing the operation. Valid values: • **true**: checks the request but does not delete the QoS policy. The system checks whether the required parameters are set, whether the formats of the values are valid, and the service limits. If the request fails the check, an error message is returned. If the request passes the check, the DryRunOperation error code is returned. • **false** (default): checks the request. If the request passes the check, the QoS policy is deleted.
TrafficQosPolicyId	String	Yes	qos-eczzew0v1kzrb5****	The ID of the QoS policy.

Response parameters

Parameter	Type	Example	Description
RequestId	String	6DF9A765-BCD2-5C7E-8C32-C35C8A361A39	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DeleteCenInterRegionTrafficQosPolicy
&ClientToken=123e4567-e89b-12d3-a456-426655****
&DryRun=false
&TrafficQosPolicyId=qos-eczzew0v1kzrb5****
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DeleteCenInterRegionTrafficQosPolicyResponse>
    <RequestId>6DF9A765-BCD2-5C7E-8C32-C35C8A361A39</RequestId>
</DeleteCenInterRegionTrafficQosPolicyResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "6DF9A765-BCD2-5C7E-8C32-C35C8A361A39"
}
```

Error codes

For a list of error codes, visit the Error Center.

18.2.6. ListCenInterRegionTrafficQosPolicies

Queries quality of service (QoS) policies.

Usage notes

When you call the `ListCenInterRegionTrafficQosPolicies` operation, take note of the following information:

- If you set the `TrafficQosPolicyId` parameter, information about the specified QoS policy and the queues in the QoS policy is returned.
- If you do not set the `TrafficQosPolicyId` parameter, the system returns information about QoS policies based on the values of the `TransitRouterId`, `TransitRouterAttachmentId`, `TrafficQosPolicyName`, and `TrafficQosPolicyDescription` parameters, but does not return information about the queues in the QoS policies.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ListCenInterRegionTrafficQosPolicies	The operation that you want to perform. Set the value to **ListCenInterRegionTrafficQosPolicies**.
TransitRouterId	String	Yes	tr-bp1rmwxnk221e3fas****	The ID of the transit router.
TransitRouterAttachmentId	String	Yes	tr-attach-r6g0m3epjehw57****	The ID of the inter-region connection.
TrafficQosPolicyId	String	No	qos-rnghap5gc8155x****	The ID of the QoS policy.
TrafficQosPolicyName	String	No	nametest	The name of the QoS policy. The name must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The name must start with a letter.
TrafficQosPolicyDescription	String	No	desctest	The description of the QoS policy. The description must be 2 to 128 characters in length, and can contain letters, digits, underscores (_), and hyphens (-). The description must start with a letter.
MaxResults	Integer	No	20	The number of entries to return per page. Valid values: **1** to **100**. Default value: **20**.
NextToken	String	No	FFmyTO70tTpLG6l3FmYAXGKPd****	The token that is used for the next query. Valid values: • If this is your first query or no next query is to be sent, ignore this parameter. • If a next query is to be sent, set the value to the value of **NextToken** that is returned from the last call.

Response parameters

Parameter	Type	Example	Description

Parameter	Type	Example	Description
NextToken	String	FFmyTO70tTpLG6I3FmYAXGKPd****	The token that is used for the next query. • If the value returned of **NextToken** is empty, it indicates that no next query is to be sent. • If a value of **NextToken** is returned, the value indicates the token that is used for the next query.
RequestId	String	113BFD47-63DF-5D9D-972C-033FB9C360CD	The ID of the request.
TotalCount	Integer	1	The number of entries returned.
MaxResults	Integer	20	The number of entries returned per page.
TrafficQosPolicies	Array of TrafficQosPolicy		The list of QoS policies.
TrafficQosPolicyName	String	nametest	The name of the QoS policy.
TrafficQosPolicyStatus	String	Creating	The status of the QoS policy. • **Creating**: being created • **Active**: available • **Modifying**: being modified • **Deleting**: being deleted • **Deleted**: deleted
TrafficQosPolicyId	String	qos-rnghap5gc8155x****	The ID of the QoS policy.
TrafficQosPolicyDescription	String	desctest	The description of the QoS policy.
TrafficQosQueues	Array of TrafficQosQueue		The list of queues.
QosQueueName	String	namtest	The name of the queue.
RemainBandwidthPercent	Integer	1	The percentage of the inter-region bandwidth that can be used by the queue.
QosQueueId	String	qos-queue-njcrmr9fiu1jii****	The ID of the queue.
QosQueueDescription	String	desctest	The description of the queue.
Dscps	Array of Integer	5	The differentiated services code point (DSCP) value of the packets to be matched by the queue.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ListCenInterRegionTrafficQosPolicies
&TransitRouterId=tr-bp1rmwxnk221e3fas****
&TransitRouterAttachmentId=tr-attach-r6g0m3epjehw57****
&TrafficQosPolicyId=qos-rnghap5gc8155x****
&TrafficQosPolicyName=nametest
&TrafficQosPolicyDescription=desctest
&MaxResults=20
&NextToken=FFmyTO70tTpLG6I3FmYAXGKPd****
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<ListCenInterRegionTrafficQosPoliciesResponse>
    <NextToken>FFmyTO70tTpLG6I3FmYAXGKPd****</NextToken>
    <RequestId>113BFD47-63DF-5D9D-972C-033FB9C360CD</RequestId>
    <TotalCount>1</TotalCount>
    <MaxResults>20</MaxResults>
    <TrafficQosPolicies>
        <TrafficQosPolicyName>nametest</TrafficQosPolicyName>
        <TrafficQosPolicyStatus>Creating</TrafficQosPolicyStatus>
        <TrafficQosPolicyId>qos-rnghap5gc8155x****</TrafficQosPolicyId>
        <TrafficQosPolicyDescription>desctest</TrafficQosPolicyDescription>
        <TrafficQosQueues>
            <QosQueueName>namtest</QosQueueName>
            <RemainBandwidthPercent>1</RemainBandwidthPercent>
            <QosQueueId>qos-queue-njcrmr9fiu1jii****</QosQueueId>
            <QosQueueDescription>desctest</QosQueueDescription>
            <Dscps>5</Dscps>
        </TrafficQosQueues>
    </TrafficQosPolicies>
</ListCenInterRegionTrafficQosPoliciesResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "NextToken" : "FFmyTO70tTpLG6I3FmYAXGKPd****",
  "RequestId" : "113BFD47-63DF-5D9D-972C-033FB9C360CD",
  "TotalCount" : 1,
  "MaxResults" : 20,
  "TrafficQosPolicies" : [ {
    "TrafficQosPolicyName" : "nametest",
    "TrafficQosPolicyStatus" : "Creating",
    "TrafficQosPolicyId" : "qos-rnghap5gc8155x****",
    "TrafficQosPolicyDescription" : "desctest",
    "TrafficQosQueues" : [ {
      "QosQueueName" : "namtest",
      "RemainBandwidthPercent" : 1,
      "QosQueueId" : "qos-queue-njcrmr9fiu1jii****",
      "QosQueueDescription" : "desctest",
      "Dscps" : [ 5 ]
    } ]
  } ]
}
```

Error codes

For a list of error codes, visit the Error Center.

19.Cloud services

19.1. ResolveAndRouteServiceInCen

Connects an on-premises network to cloud services.

Description

Cloud services refer to the Alibaba Cloud services that use the 100.64.0.0/10 CIDR block to provide services. These cloud services include Object Storage Service (OSS), Log Service, and Data Transmission Service (DTS). If your on-premises network needs to access a cloud service, you must attach the virtual border router (VBR) or Cloud Connect Network (CCN) instance that is connected to your on-premises network to a Cloud Enterprise Network (CEN) instance. In addition, you must attach a virtual private cloud (VPC) that is deployed in the same region as the cloud service to the CEN instance. This way, your on-premises network can connect to the VPC that is deployed in the same region as the cloud service and access the cloud service through the VPC.

Limits

An on-premises network associated with a VBR can use CEN to access only a cloud service that is deployed in the same region.

For example, if a cloud service is deployed in the China (Beijing) region, only on-premises networks connected to VBRs in the China (Beijing) region can access the cloud service.

Prerequisites

Before you call this operation, make sure that the following conditions are met:

- The VBR or CCN instance to which your on-premises network is connected is attached to a CEN instance.
- A VPC that is deployed in the same region as the cloud service is attached to the CEN instance. For more information, see AttachCenChildInstance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	ResolveAndRouteServiceInCen	The operation that you want to perform. Set the value to **ResolveAndRouteServiceInCen**.
AccessRegionIds.N	RepeatList	Yes	cn-hangzhou	The ID of the region where the cloud service is accessed. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
CenId	String	Yes	cen-ckwa2hhmuislse****	The ID of the CEN instance.
Host	String	Yes	100.118.28.0/24	The IP address or CIDR block of the cloud service. **Note** In most cases, a cloud service has multiple IP addresses or CIDR blocks. We recommend that you call this operation multiple times to add all IP addresses or CIDR blocks of the cloud service.
HostRegionId	String	Yes	cn-hangzhou	The ID of the region where the cloud service is deployed.
HostVpcId	String	Yes	vpc-o6woh5s494zueq40v****	The ID of the VPC that is associated with the cloud service.

Parameter	Type	Required	Example	Description
ClientToken	String	No	02fb3da4****	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must make sure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.
Description	String	No	descname	The description of the cloud service. The description must be 2 to 256 characters in length, and can contain letters, digits, hyphens (-), and periods (.).The description must start with a letter and cannot start with `http://` or `https://`. You can also leave the parameter empty.

Response parameters

Parameter	Type	Example	Description
RequestId	String	C0245BEF-52AC-44A8-A776-EF96FD26A5CA	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ResolveAndRouteServiceInCen
&AccessRegionIds.1=cn-hangzhou
&CenId=cen-ckwa2hhmuislse****
&Host=100.118.28.0/24
&HostRegionId=cn-hangzhou
&HostVpcId=vpc-o6woh5s494zueq40v****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ResolveAndRouteServiceInCenResponse>
        <RequestId>C0245BEF-52AC-44A8-A776-EF96FD26A5CA</RequestId>
</ResolveAndRouteServiceInCenResponse>
```

`JSON` format

```
{
  "RequestId": "C0245BEF-52AC-44A8-A776-EF96FD26A5CA"
}
```

Error codes

For a list of error codes, visit the API Error Center.

19.2. DeleteRouteServiceInCen

Deletes the connection configuration of a cloud service.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DeleteRouteServiceInCen	The operation that you want to perform. Set the value to **DeleteRouteServiceInCen**.
AccessRegionId	String	Yes	cn-hangzhou	The ID of the region where the cloud service is accessed. You can call the DescribeRegions operation to query the most recent region list.
CenId	String	Yes	cen-7qthudw0ll6jmc****	The ID of the Cloud Enterprise Network (CEN) instance.
Host	String	Yes	100.118.28.0/24	The IP address or CIDR block of the cloud service.
HostRegionId	String	Yes	cn-hangzhou	The ID of the region where the cloud service is deployed.
HostVpcId	String	No	vpc-bp1t36rn9l53iwbsf****	The ID of the virtual private cloud (VPC) that is associated with the cloud service.

Response parameters

Parameter	Type	Example	Description
RequestId	String	2315DEB7-5E92-423A-91F7-4C1EC9AD97C3	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DeleteRouteServiceInCen
&AccessRegionId=cn-hangzhou
&CenId=cen-7qthudw0ll6jmc****
&Host=100.118.28.0/24
&HostRegionId=cn-hangzhou
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DeleteRouteServiceInCenResponse>
    <RequestId>2315DEB7-5E92-423A-91F7-4C1EC9AD97C3</RequestId>
</DeleteRouteServiceInCenResponse>
```

`JSON` format

```
{
 "RequestId":"2315DEB7-5E92-423A-91F7-4C1EC9AD97C3"
}
```

Error codes

For a list of error codes, visit the API Error Center.

19.3. DescribeRouteServicesInCen

Queries the cloud services that are configured on a Cloud Enterprise Network (CEN) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeRouteServicesInCen	The operation that you want to perform. Set the value to **DescribeRouteServicesInCen**.
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.
PageSize	Integer	No	10	The number of entries to return per page. Default value: **10**. Valid values: **1** to **50**.
CenId	String	Yes	cen-pfa6ugf3xl0qsd****	The ID of the CEN instance.
Host	String	No	100.118.28.0/24	The service address of the cloud service. You can enter a domain name, an IP address, or a CIDR block.
HostRegionId	String	No	cn-hangzhou	The ID of the region where the cloud service is deployed. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
AccessRegionId	String	No	cn-hangzhou	The ID of the region where the cloud service is accessed.
HostVpcId	String	No	vpc-bp1h8vbrbcgohcju5****	The ID of the virtual private cloud (VPC) that is associated with the cloud service.

Response parameters

Parameter	Type	Example	Description
PageSize	Integer	10	The number of entries returned per page.
RequestId	String	196C99CA-6997-5951-9721-AE89720DF856	The ID of the request.
PageNumber	Integer	1	The number of the returned page.
TotalCount	Integer	2	The total number of entries returned.
RouteServiceEntries	Array of RouteServiceEntry		The information about the cloud services.
RouteServiceEntry			
Status	String	Active	The status of the cloud service. Valid values: • **Creating**: The cloud service is being created. • **Active**: The cloud service is available. • **Deleting**: The cloud service is being deleted.
Host	String	100.118.28.0/24	The service address of the cloud service.
Description	String	descname	The description of the cloud service.

Parameter	Type	Example	Description
HostVpcId	String	vpc-bp1h8vbrbcgohcju5****	The ID of the VPC that is associated with the cloud service.
CenId	String	cen-pfa6ugf3xl0qsd****	The ID of the CEN instance.
AccessRegionId	String	cn-hangzhou	The ID of the region where the cloud service is accessed.
HostRegionId	String	cn-hangzhou	The ID of the region where the cloud service is deployed.
Cidrs	Array of String	100.118.28.0/24	The service address of the cloud service. • If **Host** is set to an IP address or a CIDR block, the value of **Cidrs** is an IP address or a CIDR block. • If **Host** is set to a domain name, the value of **Cidrs** is the IP address to which the domain name is resolved.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeRouteServicesInCen
&PageNumber=1
&PageSize=10
&CenId=cen-pfa6ugf3xl0qsd****
&Host=100.118.28.0/24
&HostRegionId=cn-hangzhou
&AccessRegionId=cn-hangzhou
&HostVpcId=vpc-bp1h8vbrbcgohcju5****
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DescribeRouteServicesInCenResponse>
<TotalCount>2</TotalCount>
<RequestId>196C99CA-6997-5951-9721-AE89720DF856</RequestId>
<PageSize>10</PageSize>
<PageNumber>1</PageNumber>
<RouteServiceEntries>
    <RouteServiceEntry>
        <Status>Active</Status>
        <HostRegionId>cn-hangzhou</HostRegionId>
        <CenId>cen-pfa6ugf3xl0qsd****</CenId>
        <Host>100.118.28.0/24</Host>
        <AccessRegionId>ccn-cn-shanghai</AccessRegionId>
        <HostVpcId>vpc-bp1h8vbrbcgohcju5****</HostVpcId>
        <Cidrs>
            <Cidr>100.118.28.0/24</Cidr>
        </Cidrs>
    </RouteServiceEntry>
    <RouteServiceEntry>
        <Status>Active</Status>
        <HostRegionId>cn-hangzhou</HostRegionId>
        <CenId>cen-pfa6ugf3xl0qsd****</CenId>
        <Host>100.118.28.0/24</Host>
        <AccessRegionId>cn-hangzhou</AccessRegionId>
        <HostVpcId>vpc-bp1h8vbrbcgohcju5****</HostVpcId>
        <Cidrs>
            <Cidr>100.118.28.0/24</Cidr>
        </Cidrs>
    </RouteServiceEntry>
</RouteServiceEntries>
</DescribeRouteServicesInCenResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "TotalCount" : 2,
  "RequestId" : "196C99CA-6997-5951-9721-AE89720DF856",
  "PageSize" : 10,
  "PageNumber" : 1,
  "RouteServiceEntries" : {
    "RouteServiceEntry" : [ {
      "Status" : "Active",
      "HostRegionId" : "cn-hangzhou",
      "CenId" : "cen-pfa6ugf3xl0qsd****",
      "Host" : "100.118.28.0/24",
      "AccessRegionId" : "ccn-cn-shanghai",
      "HostVpcId" : "vpc-bp1h8vbrbcgohcju5****",
      "Cidrs" : {
        "Cidr" : [ "100.118.28.0/24" ]
      }
    }, {
      "Status" : "Active",
      "HostRegionId" : "cn-hangzhou",
      "CenId" : "cen-pfa6ugf3xl0qsd****",
      "Host" : "100.118.28.0/24",
      "AccessRegionId" : "cn-hangzhou",
      "HostVpcId" : "vpc-bp1h8vbrbcgohcju5****",
      "Cidrs" : {
        "Cidr" : [ "100.118.28.0/24" ]
      }
    } ]
  }
}
```

Error codes

For a list of error codes, visit the API Error Center.

20.PrivateZone

20.1. RoutePrivateZoneInCenToVpc

Sets the PrivateZone connection information.

Usage notes

PrivateZone is an Alibaba Cloud private domain name resolution and management service based on Virtual Private Cloud (VPC). After you attach virtual border routers (VBRs) and Cloud Connect Network (CCN) instances to a Cloud Enterprise Network (CEN) instance, you can configure the on-premises networks connected to the VBRs and CCN instances to access PrivateZone through the CEN instance.

Limits

The on-premises networks connected to VBRs or CCN instances must be deployed in the same region as the PrivateZone service.

For example, if the PrivateZone service is deployed in the China (Beijing) region, only on-premises networks connected to VBRs or CCN instances in China (Beijing) can access the PrivateZone service.

Prerequisites

Before you call this operation, make sure that the following conditions are met:

- PrivateZone is deployed. For more information, see PrivateZone quick start.
- The following network instances are attached to the same CEN instance: the VPC that is associated with the PrivateZone service, and the VBR and CCN instance that want to access the PrivateZone service. For more information, see AttachCenChildInstance.
- If your on-premises network uses a CCN instance to connect to Alibaba Cloud and the account that owns the CCN instance is different from the account that owns the VPC or CEN instance, you must grant the CCN instance required permissions. For more information, see Grant permissions to CCN.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	RoutePrivateZoneInCenToVpc	The operation that you want to perform. Set the value to **RoutePrivateZoneInCenToVpc**.
AccessRegionId	String	Yes	cn-hangzhou	The ID of the region where PrivateZone is accessed. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
CenId	String	Yes	cen-7qthudw0ll6jmc****	The ID of the CEN instance.
HostRegionId	String	Yes	cn-hangzhou	The ID of the region where PrivateZone is deployed.
HostVpcId	String	Yes	vpc-bp1h8vbrbcgohcju5****	The ID of the VPC that is associated with PrivateZone.

Response parameters

Parameter	Type	Example	Description
RequestId	String	C0245BEF-52AC-44A8-A776-EF96FD26A5CA	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=RoutePrivateZoneInCenToVpc
&AccessRegionId=cn-hangzhou
&CenId=cen-7qthudw0ll6jmc****
&HostRegionId=cn-hangzhou
&HostVpcId=vpc-bp1h8vbrbcgohcju5****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<RoutePrivateZoneInCenToVpcResponse>
  <RequestId>C0245BEF-52AC-44A8-A776-EF96FD26A5CA</RequestId>
</RoutePrivateZoneInCenToVpcResponse>
```

`JSON` format

```
{
    "RequestId":"C0245BEF-52AC-44A8-A776-EF96FD26A5CA"
}
```

Error codes

For a list of error codes, visit the API Error Center.

20.2. DescribeCenPrivateZoneRoutes

Queries the connection configuration of PrivateZone.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeCenPrivateZoneRoutes	The operation that you want to perform. Set the value to **DescribeCenPrivateZoneRoutes**.
CenId	String	Yes	cen-7qthudw0ll6jmc****	The ID of the Cloud Enterprise Network (CEN) instance.
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.
PageSize	Integer	No	10	The number of entries to return on each page. Default value: **10**. Valid values: **1** to **50**.
AccessRegionId	String	No	cn-hangzhou	The ID of the region where PrivateZone is accessed. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
HostRegionId	String	No	cn-hangzhou	The ID of the region where PrivateZone is deployed.

Response parameters

Parameter	Type	Example	Description
CenId	String	cen-7qthudw0ll6jmc****	The ID of the CEN instance.
PageNumber	Integer	1	The page number of the returned page.

Parameter	Type	Example	Description
PageSize	Integer	10	The number of entries returned per page.
PrivateZoneDnsServers	String	100.100.XX.XX/32,100.100.XX.XX/32	The IP address of the DNS server used by PrivateZone.
PrivateZoneInfos	Array of PrivateZoneInfo		The detailed configuration of PrivateZone.
PrivateZoneInfo			
AccessRegionId	String	cn-hangzhou	The ID of the region where PrivateZone is accessed.
HostRegionId	String	cn-hangzhou	The ID of the region where PrivateZone is deployed.
HostVpcId	String	vpc-bp18sth14qii3pnvo****	The ID of the virtual private cloud (VPC) that is associated with PrivateZone.
Status	String	Active	The status of PrivateZone. Valid values: • **Creating** • **Active** • **Deleting**
RequestId	String	461EC1B5-04A8-4706-8764-8F5BCEF48A6F	The ID of the request.
TotalCount	Integer	2	The total number of entries returned.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeCenPrivateZoneRoutes
&CenId=cen-7qthudw0ll6jmc****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeCenPrivateZoneRoutesResponse>
      <PrivateZoneInfos>
            <PrivateZoneInfo>
                  <Status>Active</Status>
                  <HostVpcId>vpc-bp18sth14qii3pnvo****</HostVpcId>
                  <AccessRegionId>ccn-cn-shanghai</AccessRegionId>
                  <HostRegionId>cn-hangzhou</HostRegionId>
            </PrivateZoneInfo>
            <PrivateZoneInfo>
                  <Status>Active</Status>
                  <HostVpcId>vpc-bp18sth14qii3pnvo****</HostVpcId>
                  <AccessRegionId>cn-hangzhou</AccessRegionId>
                  <HostRegionId>cn-hangzhou</HostRegionId>
            </PrivateZoneInfo>
      </PrivateZoneInfos>
      <PageNumber>1</PageNumber>
      <TotalCount>2</TotalCount>
      <PageSize>10</PageSize>
      <PrivateZoneDnsServers>100.100.XX.XX/32,100.100.XX.XX/32</PrivateZoneDnsServers>
      <RequestId>461EC1B5-04A8-4706-8764-8F5BCEF48A6F</RequestId>
</DescribeCenPrivateZoneRoutesResponse>
```

`JSON` format

```
{
    "PrivateZoneInfos": {
        "PrivateZoneInfo": [
            {
                "Status": "Active",
                "HostVpcId": "vpc-bp18sth14qii3pnvo****",
                "AccessRegionId": "ccn-cn-shanghai",
                "HostRegionId": "cn-hangzhou"
            },
            {
                "Status": "Active",
                "HostVpcId": "vpc-bp18sth14qii3pnvo****",
                "AccessRegionId": "cn-hangzhou",
                "HostRegionId": "cn-hangzhou"
            }
        ]
    },
    "PageNumber": 1,
    "TotalCount": 2,
    "PageSize": 10,
    "PrivateZoneDnsServers": "100.100.XX.XX/32,100.100.XX.XX/32",
    "RequestId": "461EC1B5-04A8-4706-8764-8F5BCEF48A6F"
}
```


Error codes

For a list of error codes, visit the API Error Center.

20.3. UnroutePrivateZoneInCenToVpc

Deletes the PrivateZone connection configuration.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	UnroutePrivateZoneInCenToVpc	The operation that you want to perform. Set the value to **UnroutePrivateZoneInCenToVpc**.
AccessRegionId	String	Yes	cn-hangzhou	The ID of the region where PrivateZone is accessed. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
CenId	String	Yes	cen-7qthudw0ll6jmc****	The ID of the Cloud Enterprise Network (CEN) instance.

Response parameters

Parameter	Type	Example	Description
RequestId	String	C0245BEF-52AC-44A8-A776-EF96FD26A5CA	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=UnroutePrivateZoneInCenToVpc
&AccessRegionId=cn-hangzhou
&CenId=cen-7qthudw0ll6jmc****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<UnroutePrivateZoneInCenToVpcResponse>
      <RequestId>C0245BEF-52AC-44A8-A776-EF96FD26A5CA</RequestId>
</UnroutePrivateZoneInCenToVpcResponse>
```

`JSON` format

```
{
  "RequestId": "C0245BEF-52AC-44A8-A776-EF96FD26A5CA"
}
```

Error codes

For a list of error codes, visit the API Error Center.

21.Health check

21.1. EnableCenVbrHealthCheck

Enables or modifies the health check configuration for a virtual border router (VBR).

Usage notes

You can configure the health check feature for a VBR to monitor the Express Connect circuit between your data center and Alibaba Cloud. This helps detect connection issues in a timely manner.

Before you use the health check feature, take note of the following information:

- If your VBR uses static routing, you must add a static route for the data center that is connected to the VBR after you configure the health check feature.

  Set the destination CIDR block to the source IP address of health checks, set the mask length to 32, and set the next hop to the IP address of the VBR on the Alibaba Cloud side.
- If your VBR uses dynamic Border Gateway Protocol (BGP) routing, you do not need to add routes for the data center.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	EnableCenVbrHealthCheck	The operation that you want to perform. Set the value to **EnableCenVbrHealthCheck**.
CenId	String	Yes	cen-hahhfskfkseig****	The ID of the CEN instance.
VbrInstanceRegionId	String	Yes	cn-shenzhen	The ID of the region where the VBR is deployed. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
VbrInstanceId	String	Yes	vbr-wz95o9aylj181n5mzk****	The ID of the VBR.
HealthCheckSourceIp	String	Yes	192.XX.XX.1	The source IP address of the health check. You can set the source IP address in the following ways: • **Automatic IP Address** (recommended): The system automatically assigns an IP address from the 100.96.0.0/16 CIDR block. • **Custom IP Address**: You must specify an idle IP address from the 10.0.0.0/8, 192.168.0.0/16, or 172.16.0.0/12 CIDR block. The specified IP address cannot be the IP address of the VBR on the Alibaba Cloud side, the IP address of the VBR on the customer side, or other IP addresses with which the VBR communicates through the CEN instance.
HealthCheckTargetIp	String	Yes	10.XX.XX.1	The destination IP address of the health check. Set the destination IP address to the IP address of the VBR on the customer side.

Parameter	Type	Required	Example	Description
VbrInstanceOwnerId	Long	No	253460731706911258	The ID of the Alibaba Cloud account that owns the VBR. **Note** The parameter is required if the VBR and the CEN instance belong to different Alibaba Cloud accounts.
HealthCheckInterval	Integer	No	2	The time interval at which probe packets are sent during the health check. Unit: seconds. Default value: **2**. Valid values: **2 to 3**.
HealthyThreshold	Integer	No	8	The number of probe packets that are sent during the health check. Unit: packets. Valid values: 3 to 8. Default value: 8.
HealthCheckOnly	Boolean	No	false	Specifies whether to enable probing during the health check. Valid values: • **true**: yes If you enable probing, the system does not switch to another route if the route detected is not reachable. **Note** Make sure that a redundant route is available. Otherwise, network disconnections may occur. • **false** (default): no Probing is disabled by default. If a redundant route is specified, the system switches to the redundant route when the detected route is not reachable.

Response parameters

Parameter	Type	Example	Description
RequestId	String	1F59F19C-EFD2-40B1-94D5-65B40CA8E34A	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=EnableCenVbrHealthCheck
&CenId=cen-hahhfskfkseig****
&VbrInstanceRegionId=cn-shenzhen
&VbrInstanceId=vbr-wz95o9aylj181n5mzk****
&HealthCheckSourceIp=192.XX.XX.1
&HealthCheckTargetIp=10.XX.XX.1
&VbrInstanceOwnerId=253460731706911258
&HealthCheckInterval=2
&HealthyThreshold=8
&HealthCheckOnly=false
&<Common request parameters>
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<EnableCenVbrHealthCheckResponse>
<RequestId>1F59F19C-EFD2-40B1-94D5-65B40CA8E34A</RequestId>
</EnableCenVbrHealthCheckResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "1F59F19C-EFD2-40B1-94D5-65B40CA8E34A"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	RouteConflict	The specified route already exists.	The error message returned because the specified route already exists.
400	Illegal.SourceIpOrTargetIp	The specified source IP address or destination IP address is invalid.	The error message returned because the specified source or destination IP address is invalid.

For a list of error codes, visit the API Error Center.

21.2. DescribeCenVbrHealthCheck

Queries the health check configuration of a virtual border router (VBR) in a specified region.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeCenVbrHealthCheck	The operation that you want to perform. Set the value to **DescribeCenVbrHealthCheck**.
CenId	String	No	cen-6hpdgj7ni6pz1k****	The ID of the CEN instance.
VbrInstanceRegionId	String	Yes	cn-hangzhou	The ID of the region where the VBR is deployed. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
VbrInstanceId	String	No	vbr-bp1kznorjeembsuhl****	The ID of the VBR.
VbrInstanceOwnerId	Long	No	253460731706911258	The ID of the Alibaba Cloud account that owns the VBR. **Note** The parameter is required if the VBR and the CEN instance belong to different Alibaba Cloud accounts.
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.

Parameter	Type	Required	Example	Description
PageSize	Integer	No	10	The number of entries to return on each page. Valid values: **1** to **50**. Default value: **10**.

Response parameters

Parameter	Type	Example	Description
PageSize	Integer	10	The number of entries returned per page.
RequestId	String	B8C9702E-304A-4E18-AC89-BE2D91C2C176	The ID of the request.
PageNumber	Integer	1	The page number of the returned page.
TotalCount	Integer	1	The total number of entries returned.
VbrHealthChecks	Array of VbrHealthCheck		The health check configuration of the VBR.
VbrHealthCheck			
HealthCheckTargetIp	String	192.XX.XX.1	The destination IP address of the health check.
VbrInstanceId	String	vbr-bp1kznorjeembsuhl****	The ID of the VBR.
VbrInstanceRegionId	String	cn-hangzhou	The ID of the region where the VBR is deployed.
CenId	String	cen-6hpdgj7ni6pz1k****	The ID of the CEN instance.
HealthyThreshold	Integer	8	The number of probe packets that are sent during the health check.
HealthCheckInterval	Integer	2	The time interval at which probe packets are sent during the health check. Unit: seconds.
HealthCheckSourceIp	String	172.XX.XX.1	The source IP address of the health check.
HealthCheckOnly	Boolean	false	Indicates whether probing is enabled. Valid values: • **true**: yes If probing is enabled, the system does not switch to another route when the detected route is not reachable. • **false**: no If probing is disabled and a redundant route is specified, the system switches to the redundant route when the detected route is not reachable.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeCenVbrHealthCheck
&CenId=cen-6hpdgj7ni6pz1k****
&VbrInstanceRegionId=cn-hangzhou
&VbrInstanceId=vbr-bp1kznorjeembsuhl****
&VbrInstanceOwnerId=253460731706911258
&PageNumber=1
&PageSize=10
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DescribeCenVbrHealthCheckResponse>
    <PageSize>10</PageSize>
    <RequestId>B8C9702E-304A-4E18-AC89-BE2D91C2C176</RequestId>
    <PageNumber>1</PageNumber>
    <TotalCount>1</TotalCount>
    <VbrHealthChecks>
        <HealthCheckTargetIp>192.XX.XX.1</HealthCheckTargetIp>
        <VbrInstanceId>vbr-bp1kznorjeembsuhl****</VbrInstanceId>
        <VbrInstanceRegionId>cn-hangzhou</VbrInstanceRegionId>
        <CenId>cen-6hpdgj7ni6pz1k****</CenId>
        <HealthyThreshold>8</HealthyThreshold>
        <HealthCheckInterval>2</HealthCheckInterval>
        <HealthCheckSourceIp>172.XX.XX.1</HealthCheckSourceIp>
        <HealthCheckOnly>false</HealthCheckOnly>
    </VbrHealthChecks>
</DescribeCenVbrHealthCheckResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "PageSize" : 10,
  "RequestId" : "B8C9702E-304A-4E18-AC89-BE2D91C2C176",
  "PageNumber" : 1,
  "TotalCount" : 1,
  "VbrHealthChecks" : [ {
    "HealthCheckTargetIp" : "192.XX.XX.1",
    "VbrInstanceId" : "vbr-bp1kznorjeembsuhl****",
    "VbrInstanceRegionId" : "cn-hangzhou",
    "CenId" : "cen-6hpdgj7ni6pz1k****",
    "HealthyThreshold" : 8,
    "HealthCheckInterval" : 2,
    "HealthCheckSourceIp" : "172.XX.XX.1",
    "HealthCheckOnly" : false
  } ]
}
```

Error codes

For a list of error codes, visit the API Error Center.

21.3. DisableCenVbrHealthCheck

Deletes the health check configuration of a virtual border router (VBR).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DisableCenVbrHealthCheck	The operation that you want to perform. Set the value to **DisableCenVbrHealthCheck**.
CenId	String	Yes	cen-sjfoejfghhjgghjghkg****	The ID of the Cloud Enterprise Network (CEN) instance.
VbrInstanceId	String	Yes	vbr-wz95o9aylj181n5****	The ID of the VBR.
VbrInstanceRegionId	String	Yes	cn-hangzhou	The ID of the region where the VBR is deployed. You can call the DescribeChildInstanceRegions operation to query the most recent region list.
VbrInstanceOwnerId	Long	No	1688000000000000	The ID of the Alibaba Cloud account that owns the VBR. **Note** The parameter is required if the VBR and the CEN instance belong to different Alibaba Cloud accounts.

Response parameters

Parameter	Type	Example	Description
RequestId	String	A278B8A6-A5B8-4FDE-9F70-95F0F6A1D68A	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DisableCenVbrHealthCheck
&CenId=cen-sjfoejfghhjgghjghkg****
&VbrInstanceId=vbr-wz95o9aylj181n5****
&VbrInstanceRegionId=cn-hangzhou
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DisableCenVbrHealthCheckResponse>
      <RequestId>A278B8A6-A5B8-4FDE-9F70-95F0F6A1D68A</RequestId>
</DisableCenVbrHealthCheckResponse>
```

`JSON` format

```
{
    "RequestId":"A278B8A6-A5B8-4FDE-9F70-95F0F6A1D68A"
}
```

Error codes

For a list of error codes, visit the API Error Center.

22.Flow logs

22.1. CreateFlowlog

Creates a flow log.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
CenId	String	Yes	cen-7qthudw0ll6jmc****	The ID of the Cloud Enterprise Network (CEN) instance.
LogStoreName	String	Yes	FlowLogStore	The Logstore that stores the captured traffic.
ProjectName	String	Yes	FlowLogProject	The Project that stores the captured traffic.
RegionId	String	Yes	cn-hangzhou	The region to which the flow log belongs. To query region IDs, you can call the DescribeRegions operation.
Action	String	No	CreateFlowlog	The operation that you want to perform. Set the value to **CreateFlowLog**.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-0016e04115b	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must ensure that it is unique among different requests. The token can only contain ASCII characters and cannot exceed 64 characters in length.
Description	String	No	This is my Flowlog.	The description of the flow log. The description must be 2 to 256 characters in length. It must start with a letter but cannot start with `http://` or `https://`.
FlowLogName	String	No	myFlowlog	The name of the flow log. The name must be 2 to 128 characters in length and can contain digits, periods (.), underscores (_), and hyphens (-). It must start with a letter but cannot start with `http://` or `https://`.

Response parameters

Parameter	Type	Example	Description
FlowLogId	String	flowlog-m5evbtbpt****	The ID of the flow log.
RequestId	String	54B48E3D-DF70-471B-AA93-08E683A1B457	The ID of the request.
Success	String	true	Indicates whether the operation is successful. Valid values: • **true**: The operation is sucessful. • **false**: The operation is not successful.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=CreateFlowlog
&CenId=cen-7qthudw0ll6jmc****
&LogStoreName=FlowLogStore
&ProjectName=FlowLogProject
&RegionId=cn-hangzhou
&<Common request parameters>
```

Sample success responses

`XML` format

```
<CreateFlowlogResponse>
      <RequestId>3D6F9FD4-AE3E-416D-950F-FC3696E27977</RequestId>
   <FlowLogId>flowlog-kklh24tcz044ne****</FlowLogId>
   <Success>true</Success>
</CreateFlowlogResponse>
```

`JSON` format

```
{
 "RequestId":"3D6F9FD4-AE3E-416D-950F-FC3696E27977",
 "FlowLogId":"flowlog-kklh24tcz044ne****",
 "Success":true
}
```

Error codes

For a list of error codes, visit the API Error Center.

22.2. ModifyFlowLogAttribute

Modifies the name and description of a flow log.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
CenId	String	Yes	cen-7qthudw0ll6jmc****	The ID of the Cloud Enterprise Network (CEN) instance.
FlowLogId	String	Yes	flowlog-m5evbtbpt****	The ID of the flow log.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the flow log is deployed. You can call the DescribeRegions operation to query region IDs.
Action	String	No	ModifyFlowLogAttribute	The operation that you want to perform. Set the value to **ModifyFlowLogAttribute**.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-0016e04115b	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must ensure that it is unique among different requests. The token can only contain ASCII characters and cannot exceed 64 characters in length.

Parameter	Type	Required	Example	Description
Description	String	No	This is my Flowlog.	The description of the flow log. The description must be 2 to 256 characters in length. It must start with a letter but cannot start with `http://` or `https://`.
FlowLogName	String	No	myFlowlog	The name of the flow log. The name must be 2 to 128 characters in length and can contain letters, digits, periods (.), underscores (_), and hyphens (-). It must start with a letter but cannot start with `http://` or `https://`.

Response parameters

Parameter	Type	Example	Description
RequestId	String	9A411874-2EC8-4633-9D30-9012DCE89DD1	The ID of the request.
Success	String	true	Indicates whether the operation is successful. Valid values: • **true**: The operation is successful. • **false**: The operation is not successful.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=ModifyFlowLogAttribute
&CenId=cen-7qthudw0ll6jmc****
&FlowLogId=flowlog-m5evbtbpt****
&RegionId=cn-hangzhou
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ModifyFlowLogAttributeResponse>
   <RequestId>9A411874-2EC8-4633-9D30-9012DCE89DD1</RequestId>
      <Success>true</Success>
</ModifyFlowLogAttributeResponse>
```

`JSON` format

```
{
 "RequestId":"9A411874-2EC8-4633-9D30-9012DCE89DD1",
 "Success":true
}
```

Error codes

For a list of error codes, visit the API Error Center.

22.3. DescribeFlowlogs

Queries flow logs.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	DescribeFlowlogs	The operation that you want to perform. Set the value to **DescribeFlowLogs**.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-0016e04115b	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must ensure that it is unique among different requests. The token can only contain ASCII characters and cannot exceed 64 characters in length.
RegionId	String	No	cn-hangzhou	The ID of the region to which the flow log belongs. To query region IDs, you can call the DescribeRegions operation.
FlowLogName	String	No	myFlowlog	The name of the flow log.
FlowLogId	String	No	flowlog-m5evbtbpt****	The ID of the flow log.
Description	String	No	This is my Flowlog.	The description of the flow log. The description must be 2 to 256 characters in length. It must start with a letter. It cannot start with `http://` or `https://`.
CenId	String	No	cen-7qthudw0ll6jmc****	The ID of the Cloud Enterprise Network (CEN) instance.
ProjectName	String	No	Project	The Project that stores the captured traffic data.
LogStoreName	String	No	LogStore	The Logstore that stores the captured traffic data.
Status	String	No	Active	The status of the flow log. Valid values: • **Active**: The flow log is enabled. • **Inactive**: The flow log is disabled.
PageNumber	Integer	No	1	The number of the page to return. Default value: **1**.
PageSize	Integer	No	10	The number of entries to return on each page. Default value: **20**.

Response parameters

Parameter	Type	Example	Description
FlowLogs	Array		The details of the flow log.
FlowLog			
CenId	String	cen-7qthudw0ll6jmc****	The ID of the CEN instance.
CreationTime	String	2018-07-24T13:00:52Z	The time when the flow log was created.
Description	String	abc	The description of the flow log.

Parameter	Type	Example	Description
FlowLogId	String	flowlog-m5evbtbpt****	The ID of the flow log.
FlowLogName	String	myFlowlog	The name of the flow log.
LogStoreName	String	FlowLogStore	The Logstore that stores the captured traffic.
ProjectName	String	FlowLogProject	The Project that stores the captured traffic.
RegionId	String	cn-hangzhou	The region.
Status	String	Active	The status of the flow log. Valid values: • **Active**: The flow log is enabled. • **Inactive**: The flow log is disabled.
PageNumber	String	1	The number of the returned page.
PageSize	String	10	The number of entries returned per page.
RequestId	String	F7DDDC17-FA06-4AC2-8F35-59D2470FCFC1	The ID of the request.
Success	String	true	Indicates whether the operation is successful. • **true**: The operation is successful. • **false**: The operation is not successful.
TotalCount	String	3	The total number of entries returned.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DescribeFlowlogs
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeFlowlogsResponse>
      <TotalCount>0</TotalCount>
      <FlowLogs>
    </FlowLogs>
      <PageSize>20</PageSize>
      <RequestId>6E9FE452-7F4A-44F8-B5C4-D2A5066CED6F</RequestId>
      <PageNumber>1</PageNumber>
      <Success>true</Success>
</DescribeFlowlogsResponse>
```

`JSON` format

```
{
 "TotalCount": 0,
 "FlowLogs": {
  "FlowLog": []
 },
 "PageSize": 20,
 "RequestId": "6E9FE452-7F4A-44F8-B5C4-D2A5066CED6F",
 "PageNumber": 1,
 "Success": true
}
```


Error codes

For a list of error codes, visit the API Error Center.

22.4. ActiveFlowLog

Activates a flow log to capture the traffic of the specified resource.

Make the API call

You can use OpenAPI Explorer to make API calls, search for API calls, perform debugging, and generate SDK example code.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	No	ActiveFlowLog	The name of this action. Value: **ActiveFlowLog**
CenId	String	Yes	cen-7qthudw0ll6jmc****	The ID of the CEN instance.
FlowLogId	String	Yes	flowlog-m5evbtbpt****	The ID of the flow log.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the flow log belongs. To query the region ID, call DescribeRegions.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-0016e04115b	The client token. It is used to ensure the idempotence of the request. The value of this parameter is generated by the client. Make sure that this value is unique among different requests and does not exceed 64 ASCII characters.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	F7DDDC17-FA06-4AC2-8F35-59D2470FCFC1	The ID of the request.
Success	String	true	Indicates whether the operation is successful. Valid values: • **true**: The operation is successful. • **false**: The operation failed.

Examples

Request example

```
http(s)://[Endpoint]/? Action=ActiveFlowLog
&CenId=cen-7qthudw0ll6jmc****
&FlowLogId=flowlog-m5evbtbpt****
&RegionId=cn-hangzhou
&<CommonParameters>
```

Response example

`XML` format

```
<ActiveFlowLogResponse>
      <RequestId>F7DDDC17-FA06-4AC2-8F35-59D2470FCFC1</RequestId>
      <Success>true</Success>
</ActiveFlowLogResponse>
```

`JSON` format

```
{
    "RequestId": "F7DDDC17-FA06-4AC2-8F35-59D2470FCFC1",
    "Success": true
}
```

Errors

For a list of error codes, visit the API Error Center.

22.5. DeactiveFlowLog

Deactivates a flow log to stop capturing the traffic of the specified resource.

Make the API call

You can use OpenAPI Explorer to make API calls, search for API calls, perform debugging, and generate SDK example code.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	No	DeactiveFlowLog	The name of this action. Value: **DeactiveFlowLog**
CenId	String	Yes	cen-7qthudw0ll6jmc****	The ID of the CEN instance.
FlowLogId	String	Yes	flowlog-m5evbtbpt****	The ID of the flow log.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the flow log belongs. To query the region ID, call DescribeRegions.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-0016e04115b	The client token. It is used to ensure the idempotence of the request. The value of this parameter is generated by the client. Make sure that this value is unique among different requests and does not exceed 64 ASCII characters.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	F7DDDC17-FA06-4AC2-8F35-59D2470FCFC1	The ID of the request.
Success	String	true	Indicates whether the operation is successful. Valid values: • **true**: The operation is successful. • **false**: The operation failed.

Examples

Request example

```
http(s)://[Endpoint]/? Action=DeactiveFlowLog
&CenId=cen-7qthudw0ll6jmc****
&FlowLogId=flowlog-m5evbtbpt****
&RegionId=cn-hangzhou
&<CommonParameters>
```

Response example

`XML` format

```
<DeactiveFlowLogResponse>
       <RequestId>F7DDDC17-FA06-4AC2-8F35-59D2470FCFC1</RequestId>
       <Success>true</Success>
</DeactiveFlowLogResponse>
```

`JSON` format

```
{
    "RequestId": "F7DDDC17-FA06-4AC2-8F35-59D2470FCFC1",
    "Success":"true"
}
```

Errors

For a list of error codes, visit the API Error Center.

22.6. DeleteFlowlog

Deletes a flow log.

Make the API call

You can use OpenAPI Explorer to make API calls, search for API calls, perform debugging, and generate SDK example code.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	No	DeleteFlowlog	The name of this action. Value: **DeleteFlowLog**
CenId	String	Yes	cen-7qthudw0ll6jmc****	The ID of the CEN instance.
FlowLogId	String	Yes	flowlog-m5evbtbpt****	The ID of the flow log.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the flow log belongs. To query the region ID, call DescribeRegions.
ClientToken	String	No	ClientToken	The client token. It is used to ensure the idempotence of the request. The value of this parameter is generated by the client. Make sure that this value is unique among different requests and does not exceed 64 ASCII characters.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	F7DDDC17-FA06-4AC2-8F35-59D2470FCFC1	The ID of the request.
Success	String	true	Indicates whether the operation is successful. • **true**: The operation is successful. • **false**: The operation failed.

Examples

Request example

```
http(s)://[Endpoint]/? Action=DeleteFlowlog
&CenId=cen-7qthudw0ll6jmc****
&FlowLogId=flowlog-m5evbtbpt****
&RegionId=cn-hangzhou
&<CommonParameters>
```

Response example

`XML` format

```
<DeleteFlowLogResponse>
        <RequestId>F7DDDC17-FA06-4AC2-8F35-59D2470FCFC1</RequestId>
        <Success>true</Success>
</DeleteFlowLogResponse>
```

`JSON` format

```
{
    "RequestId": "F7DDDC17-FA06-4AC2-8F35-59D2470FCFC1",
    "Success":"true"
}
```

Errors

For a list of error codes, visit the API Error Center.

23.Tag API

23.1. TagResources

Creates tags and adds them to a resource.

Description

- Each tag consists of a tag key and a tag value. When you add a tag, you must specify the tag key and tag value.
- If you want to add multiple tags to a Cloud Enterprise Network (CEN) instance, each tag key must be unique.
- You can add at most 20 tags to a CEN instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	TagResources	The operation that you want to perform. Set the value to **TagResources**.
ResourceType	String	Yes	cen	The type of the resource. Set the value to **cen**, which specifies a CEN instance.
ResourceId.N	String	Yes	cen-pfa6ugf3xl0qsd****	The ID of the resource. You can enter multiple resource IDs. Valid values of **N**: **1** to **20**.
Tag.N.Key	String	Yes	TagKey	The tag key. You can enter multiple tag keys. Valid values of **N**: **1** to **20**. The key cannot exceed 64 characters in length, and cannot start with `aliyun` or `acs:`. It cannot contain `http://` or `https://`.
Tag.N.Value	String	Yes	TagValue	The tag value. Each tag key corresponds to a tag value. Valid values of **N**: **1** to **20**. The value cannot exceed 128 characters in length, and cannot start with `aliyun` or `acs:`. It cannot contain `http://` or `https://`.

Response parameters

Parameter	Type	Example	Description
RequestId	String	C46FF5A8-C5F0-4024-8262-B16B639225A0	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=TagResources
&ResourceType=cen
&ResourceId=["cen-pfa6ugf3xl0qsd****"]
&Tag=[{"Key":"TagKey","Value":"TagValue"}]
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<TagResourcesResponse>
    <RequestId>C46FF5A8-C5F0-4024-8262-B16B639225A0</RequestId>
</TagResourcesResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "C46FF5A8-C5F0-4024-8262-B16B639225A0"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidTagKey	The tag keys are not valid.	The error message returned because the tag key is invalid.
400	DuplicatedParam.TagKey	The parameter TagKey is duplicated.	The error message returned because the specified tag key already exists.
400	IllegalParamLength.Tag	The specified length of Tag is invalid.	The error message returned because the length of the specified tag key has exceeded the upper limit. Check the limits and change the value accordingly.

For a list of error codes, visit the API Error Center.

23.2. ListTagResources

Queries the tags that are added to CEN instances.

Usage notes

To call this operation, you must set at least one of **ResourceId.N** and **Tag.N.Key**.

- If you set only **ResourceId.N**, the tags that are added to the specified CEN instances are queried.
- If you set only **Tag.N.Key**, the CEN instances that have the specified tags are queried.
- If you set both **ResourceId.N** and **Tag.N.Key**, the specified tags that are added to the specified CEN instances are queried.
  - Make sure that the CEN instance specified by **ResourceId.N** has the tag specified by **Tag.N.Key**. Otherwise, the response returns null.
  - If multiple tag keys are specified, the logical operator among these tag keys is **AND**.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ListTagResources	The operation that you want to perform. Set the value to **ListTagResources**.
ResourceType	String	Yes	cen	The resource type. Set the value to **cen**, which specifies a CEN instance.

Parameter	Type	Required	Example	Description
NextToken	String	No	15399****	The token that is used for the next query. Valid values: • If this is your first query or no next query is to be sent, ignore this parameter. • If a next query is to be sent, set the value to the value of NextToken that is returned from the last call.
PageSize	Integer	No	10	The number of entries to return on each page. Valid values: **1** to **50**. Default value: **10**.
Tag.N.Key	String	No	test	The tag keys. The key cannot exceed 64 characters in length, and cannot start with `aliyun` or `acs:`. It cannot contain `http://` or `https://`. You can specify at most 20 tag keys in each call.
Tag.N.Value	String	No	Bp	The tag values. The value cannot exceed 128 characters in length, and cannot start with `aliyun` or `acs:`. It cannot contain `http://` or `https://`. You can specify at most 20 tag values.

Response parameters

Parameter	Type	Example	Description
NextToken	String	15399****	The token that is used for the next query. Valid values: • If **NextToken** is empty, it indicates that no next query is to be sent. • If **NextToken** is not empty, the value indicates the token that is used for the next query.
RequestId	String	165B5C86-2033-5954-A89D-4CD83BA06C85	The ID of the request.
TagResources	Array of TagResource		The resources and tags.
TagResource			
ResourceType	String	CEN	The resource type.
TagValue	String	Bp	The value of the tag.
ResourceId	String	cen-8z69wtwqel33lq****	The ID of the resource.
TagKey	String	test	The key of the tag.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ListTagResources
&ResourceType=cen
&NextToken=15399****
&PageSize=10
&ResourceId=["cen-8z69wtwqel33lq****"]
&Tag=[{"Key":"test","Value":"Bp"}]
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<ListTagResourcesResponse>
<RequestId>165B5C86-2033-5954-A89D-4CD83BA06C85</RequestId>
<NextToken>15399****</NextToken>
<TagResources>
    <TagResource>
        <ResourceId>cen-8z69wtwqel33lq****</ResourceId>
        <TagKey>test</TagKey>
        <ResourceType>CEN</ResourceType>
        <TagValue>Bp</TagValue>
    </TagResource>
</TagResources>
</ListTagResourcesResponse>
```

`JSON` format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "165B5C86-2033-5954-A89D-4CD83BA06C85",
  "NextToken" : "15399****",
  "TagResources" : {
    "TagResource" : [ {
      "ResourceId" : "cen-8z69wtwqel33lq****",
      "TagKey" : "test",
      "ResourceType" : "CEN",
      "TagValue" : "Bp"
    } ]
  }
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidTagKey	The tag keys are not valid.	The error message returned because the specified tag key is invalid.
400	IllegalParam.NextToken	The parameter NextToken is invalid.	The error message returned because NextToken is set to an invalid value. Specify a valid value and try again.

For a list of error codes, visit the API Error Center.

23.3. UntagResources

Removes tags from resources.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	No	UntagResources	The operation that you want to perform. Set the value to **UntagResources**.
ResourceId.N	RepeatList	Yes	cen-7qthudw0ll6jmc****	The ID of the resource. Valid values of **N**: **1** to **50**.
ResourceType	String	Yes	cen	The type of the resource. Set the value to **cen**.
TagKey.N	RepeatList	No	FinanceDept	The key of the tag. The key can be at most 64 characters in length, and cannot start with `aliyun` or `acs:`. It cannot contain `http://` or `https://`. If multiple tag keys are specified, the logical relation among these tag keys is **AND**. Valid values of **N**: **1** to **20**.
All	Boolean	No	false	Specifies whether to remove all tags. Valid values: • **true**: yes • **false** (default): no **Note** This parameter takes effect only when the **TagKey.N** parameter is not specified.

Response parameters

Parameter	Type	Example	Description
RequestId	String	C46FF5A8-C5F0-4024-8262-B16B639225A0	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=UntagResources
&ResourceId.1=cen-7qthudw0ll6jmc****
&ResourceType=cen
&<Common request parameters>
```

Sample success responses

`XML` format

```
<UntagResourcesResponse>
      <RequestId>C46FF5A8-C5F0-4024-8262-B16B639225A0</RequestId>
</UntagResourcesResponse>
```

`JSON` format

```
{
    "RequestId":"C46FF5A8-C5F0-4024-8262-B16B639225A0"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidTagKey	The tag keys are not valid.	The error message returned because the key of the tag is invalid.

For a list of error codes, visit the API Error Center.